REPORT OF THE PROCEEDINGS

OF THE

NORTHUMBERLAND AND DURHAM

MEDICAL SOCIETY.

SESSION 1891-92.

Newcastle-upon-Tyne:
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1891.

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Professor Bedson, 18, Moor View, Newcastle.
Byrom Bramwell, M.D., Drumsheugh Gardens, Edinburgh.
Jonathan Hutchinson, 15, Cavendish Square, London, W.
R. T. Jessop, 32, Park Square, Leeds.
Clement Stephenson, Sandyford Villa, Newcastle.
Professor Lawson Tait, The Crescent, Birmingham.

The Medical Officers of Her Majesty's Forces in the District.

NORTHUMBERLAND AND DURHAM

MEDICAL SOCIETY.

SESSION 1891-92.

ANNUAL MEETING.

The Annual Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on the evening of Thursday, October 8th—Dr. Murphy (Vice-President) in the chair.

The following Officers were elected for Session 1891-92 :—

President—W. Gowans, M.D.

Vice-Presidents—R. Anderson, M.D. ; D. Drummond, M.D. ; F. Page ; R. S. Peart, M.D.

Honorary Secretaries—J. Limont, M.B. ; Rutherford Morison, F.R.C.S.

Committee—J. Adamson, M.D. ; W. C. Arnison, M.D. ; G. W. Black, F.R.C.S.E. ; J. Drummond, M.D. ; G. H. Hume, M.D. ; J. Murphy, M.D. ; T. Oliver, M.D. ; G. H. Philipson, M.D. ; G. E. Williamson, F.R.C.S.

Dr. Limont (Hon. Sec.) read the following report, which was adopted :—

ANNUAL REPORT FOR SESSION 1890-91.

Your Committee have pleasure in presenting a Report of a highly satisfactory nature.

The meetings during the session were very well attended, those present being on an average above fifty.

Cases, specimens, and papers were furnished by members in abundance, so much so that discussions were often cut short, and papers frequently had to be taken as read. Your Committee, on a recommendation from last annual meeting, considered whether an arrangement could not be come to whereby these drawbacks might be obviated, but came to the conclusion that a more strict attention to Rules 14 and 15 would meet the requirements of the case.

These two rules are as follows :—Rule 14. Members exhibiting pathological specimens or patients, shall limit their remarks to five minutes, and these remarks shall not be read. Rule 15. The room adjoining the Library shall be used for microscopic and card specimens ; to be shewn, as far as possible, before the commencement of the meeting.

At the beginning of session 1890-91 there were 190 members. During the session twenty new members were elected ; ten members left the district ; four resigned ; and four died. Of these four, one was Dr. Spear, of the Local Government Board, who had for some years been an honorary member of the Society.

The balance at the beginning of the session was £13 0s. 10d. There has been received in subscriptions £119 10s., of which about £25 was from arrears. The total income amounted to £132 10s. 10., while the expenditure was £80 7s. 3d., leaving a balance in hand of £52 3s. 7d. The amount of unpaid subscriptions amounts to about £9 only.

Rule 12 of the Society states that after retaining a sufficient reserve fund, "Any surplus remaining shall be transferred to the Treasurer of the Infirmary Medical Library Fund, to be applied by the Medical Committee of that institution in furtherance of the special object of the Library Fund, as a slight acknowledgment of the great benefit conferred on the members of the Society by the access to the Library and other advantages so liberally conceded to them by the Medical Officers and Committee of the Infirmary."

Your Committee, taking into consideration the large balance in hand, and the fact that no contribution to the Library Fund seems to have been made for some years, beg to recommend that twenty-five guineas be handed to the treasurer of that fund.

Arrangements have been made to get bound two sets of the Transactions of the Society. One set will be retained by the Secretary, and the other placed in the Library for reference.

NEW MEMBERS ELECTED.

M. Clark, M.B, Heaton Road, Newcastle.
Collin Gordon, M.B., Ingham Infirmary, Westoe.
S. W. Plummer, M.B., Durham Hospital.
R. G. Smith, M.R.C.S., Coxlodge Asylum.

NEW MEMBERS PROPOSED.

James Anderson, M.A., M.B. (Edin.), Dudley.
A. C. Burnell, M.B. (Edin.), Osborne Road.
J. R. Phillip, M.B. (Edin.), Morpeth.
Stanley Yeoman, M.B., Morpeth.

Dr. REDMOND, in accordance with notice given, proposed "That the number of ordinary meetings of the Society be increased to nine." The motion was seconded by Dr. RIDLEY (Gateshead). On being put to the meeting, the motion was not carried.

The SECRETARY said he had received from Dr. Oliver a copy of his treatise on "Lead Poisoning." It was resolved that the thanks of the Society be transmitted to Dr. Oliver for his valuable contribution to the Library.

Dr. MURPHY read a telegram from Dr. Drummond (Retiring President) regretting his inability to be present, and afterwards introduced Dr. Gowans, President-Elect.

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NORTHUMBERLAND AND DURHAM

MEDICAL SOCIETY.

SESSION 1891-92.

OCTOBER MEETING.

The Monthly Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on October 8th—Dr. Gowans (President) in the chair. Forty-five members present.

Dr. Gowans thanked the members for the honour they had done him in electing him President.

NEW MEMBERS ELECTED.

J. Anderson, M.A., M.B., Dudley.
A. C. Burnell, M.B., Osborne Road.
J. R. Phillip, M.B., Morpeth.
Stanley Yeoman, M.B., Morpeth.

PHTHISIS LARYNGEA HYPERTROPHICA—PERICHONDRITIS—TRACHEOTOMY RECOVERY.

Dr. Robertson: T. V., æt. 38, furnaceman, complaining of great difficulty in breathing and dysphagia. History: 13 years ago, hæmoptysis; one year ago, dyspnœa and dysphagia began.

Examination.—Omega-shaped epiglottis, contracted ary-epiglottic bands. False cords greatly thickened, especially right, which conceals both vocal cords. This band ulcerated. Externally, box of larynx protuberant, point of cricoid indistinguishable. Tracheotomy 28/5/91. Trachœa deeply situated, its upper part including cricoid enveloped in a dense layer of adventitious tissue half-an-inch thick anteriorly, which binds down and constricts trachœa. Operation under cocaine. An unusually long canula required to reach trachea.

Weight before operation 7st. 11lbs. 8oz., a month after 8st. 8lbs., when he resumed work, and has continued at this ever since. There is a cavity in right apex. Cough and expectoration have diminished, appetite fair. External wound dressed with an auramine ointment, which seems to prevent tubercular infection of same. Menthol in ether is inhaled through tube.

Remarks.—This case proves the benefit of tracheotomy in tubercular laryngitis. The patient was practically doomed within a short period had not intervention been made.

The unusual complication met with at the operation was no doubt due to extension of tubercular infection into the tissues in front of the larynx. The observance of the rule to keep strictly to the middle line in operating aided in this case greatly, especially as the landmark of the cricoid was *non est.*

LARYNGO-PHARYNGEAL STENOSIS.

Dr. Robertson: W. N., æt. 61, complaining of dyspnœa dysphonia and dysphagia for one year. History: For 20 years has had ulceration of lips, mouth, tongue, and throat.

Examination with laryngoscope.—Omega-shaped epiglottis. Through chink diameter of pencil one-eighth of an inch of both vocal cords seen, which apparently move freely. With finger two bands, one on each side epiglottis, can be felt running to opposing surface of oropharynx, leaving an aperture for breathing and swallowing, through which tip of finger only can be made to touch arytænoids. The posterior wall of rest of larynx evidently adherent to opposite pharyngeal wall.

Tracheotomy, 14/5/91, under cocaine to relieve breathing, the dyspnœa fast reducing patient. A further effort was made with blunt-pointed scissors to sever bands referred to. This, however, was followed by dangerous hæmorrhage, and desisted from. An effort is now being made with graduated bougies to enlarge stenosis.

Remarks.—The above is an unusual form of stenosis. In fact, I have seen no illustration of such a condition. In Schroetter's works, none approaching such is given.

A CASE OF MYXŒDEMA TREATED BY HYPODERMIC INJECTIONS OF THE THYROID GLAND OF A SHEEP.

Dr. George Murray: I shewed this patient at the February Meeting of this Society, and then suggested treating her by means of hypodermic injections of an extract of the thyroid gland of a sheep. As is well known this disease is due to the loss of function of the thyroid gland, so it was hoped that this treatment would in part, at least, compensate for that deficiency and relieve the symptoms of the disease.

The patient, a woman of 46, has been ill for about five years, and last February she was a typical case of myxœdema. There was a considerable amount of solid œdema of the face and hands especially. The upper eyelids were so much enlarged that she found it difficult to look upwards, and all the features were considerably thickened. The hands were large and "spade like;" the

skin was dry and scaly, for she had not perspired for four years; the hair was fine and scanty; the speech was slow and drawling; she was slow in thought and action; she complained of langour, disinclination to see strangers, and sensitiveness to cold. The temperature was sub-normal, as it varied between 96·4 and 97·2 deg. F.

The treatment commenced in April, and during the last six months extracts of eight lobes of thyroid glands of sheep have been injected. Those of you who have seen the patient before will notice that a striking improvement has taken place. The subcutaneous solid œdema has greatly diminished, and has practically disappeared from the hands; the lips are much smaller; the swelling of the upper eyelids has so much diminished that the patient can look upwards quite easily; the swelling of the whole face has greatly diminished, and most of the natural wrinkles have returned; the speech has improved so that scarcely any drawl is now to be noticed; her mental processes seem to take place more rapidly, and the memory has improved, so that she is no longer afraid of going out alone. She menstruated normally in May, June, and July. The skin is much less dry, and she perspires when out walking. She is no longer so sensitive to cold, and the temperature, is practically normal. The hair has begun to grow again, so that she now has a considerable quantity of new short hair on the head.

The extract is prepared in the following manner:—One lobe of the thyroid gland of a freshly-killed sheep is cut into small pieces, and mixed with 1 cubic centimetre of glycerine and 1 cubic centimetre of a 0·5 per cent. solution of carbolic acid. This mixture is allowed to stand in a test-tube closed with a plug of cottonwool for 18 to 24 hours. All vessels and instruments used in the preparation should be either sterilised by heat or thoroughly cleansed with a 1 in 20 solution of carbolic acid. The mixture is placed in a fine handkerchief which has previously been placed for a few minutes in boiling water, and as much fluid as possible is squeezed through it. By this means 3 cubic centimetres of a turbid pink liquid are obtained. 1·5 cubic centimetres (25 minims) of this may be injected twice during a week, and should be repeated every other week. In this way a patient receives the extract of one lobe each fortnight. The injections are made with an ordinary hypodermic syringe beneath the loose skin of the back between the shoulder blades. The syringe and the surface of the skin are both carefully cleansed with a 1 in 20 solution of carbolic acid.

Dr. Redmond remembered the condition of the patient when before the Society in February, and thought Dr. Murray was to be congratulated upon the manifest improvement resulting from

the original treatment he had been since carrying out; and hoped the Society would, later on, be afforded an opportunity of observing its further progress.

The PRESIDENT endorsed the improvement detailed by Dr. Murray. When the case was first shewn he had warned members not to jump to conclusions while treating such cases, since the patients varied greatly, being better in summer and worse in winter.

He had not been prepared to find such an improvement as he now saw in the patient, and he was inclined to believe that this improvement was due to the treatment.

He understood Dr. Murray to say that he did not expect to cure the case, but merely to stay its progress and improve the general condition of the patient.

HYDATID OF THE KIDNEY.

Dr. LIMONT: This patient (S. R.) first came under my care eighteen months ago. She then complained of a swelling, with occasionally severe pain in the right lumbar region, which had been present for a year.

The tumour was rounded, smooth and tender, extending from the ribs to the iliac crest and forwards to the middle line. The colon lay in front and internal to it. It moved with deep respiration. The hand could be inserted between the tumour and the ribs. The urine was normal.

It was concluded that the tumour was a renal one. The diagnosis seemed to be between hydro-nephrosis and hydatid. Fluid drawn off by a hypodermic needle was watery-looking, contained no albumen, but a good deal of sodium chloride. No hooklets were discovered

It was found impossible to empty the cyst by an aspirator, probably through the membrane being driven before, and not being penetrated by, the needle.

While arrangements were being made for operation, the patient developed severe melancholia, and had to be sent home.

Three months ago she was re-admitted suffering from severe cardiac symptoms, including ascites and greatly enlarged liver.

Under treatment she greatly improved. The cyst was slightly enlarged. A needle withdrew clear fluid in which floated white flakes; these under the microscope proved to be small particles of hydatid membrane, easily recognized by lamination and pectination of the laminæ. The trocar of the aspirator withdrew a few days later a very little fluid, and then stopped running. The fluid contained scolices and hooklets in abundance.

For about a month the patient has had a high temperature, with occasional perspirations and one or two slight shiverings. About a fortnight ago, however, the hypodermic needle withdrew clear

fluid. I am inclined to think, therefore, that there is suppuration outside the sac. The patient is now greatly better as regards her cardiac condition, and I am inclined to have her put under an anæsthetic, and to have the sac incised and drained.

Dr. REDMOND observed that he had just ascertained the patient's temperature to be 100 deg., that in reply to questions she stated she had several "rigors" or shiverings recently, and also cold sweats at night—symptoms which pointed to the existence of suppuration in, or around, the tumour.

ENTEROTOMY FOLLOWED BY ENTERORAPHY FOR INTESTINAL OBSTRUCTION.

Dr. HUME showed a patient on whom enterotomy, and subsequently enteroraphy, had been performed. The patient was a puddler, aged 32, who was admitted into the Royal Infirmary on 18th March, 1891. He was then suffering from severe abdominal pain, which had come on suddenly on the morning of his admission, and from constant vomiting. Towards night the man's condition became so much worse that Dr. Hume was sent for at midnight. The patient was then almost in a state of collapse, vomiting incessantly, with the abdomen moderately distended, and friction to be felt in some parts. An enema had been given, and had brought away some stool from the lower bowel. Besides the evidence of several peritonitis there was probability of some definite cause of obstruction from the suddenness of the attack; and, as the conditon was urgent, abdominal section was performed. The distended bowel was traced down to the ilio-cæcal valve, where there was adhesion of the coils. The appendix could not be found. It was judged inexpedient to attempt any prolonged operation, such as the separation of the matted intestine and the finding of the probably diseased appendix would have involved. A piece of bowel, as near as possible to the valve, was therefore brought into the wound, attached to skin and peritoneum, and opened. The following morning treatment was begun by repeated doses of sulphate of soda till purging through the artificial opening took place. The stomach was also washed out. So soon as the bowels began to act the vomiting ceased, and the patient could be fed with gradually increased quantities of milk and peptonised meat juice. He made a rapid recovery. An attempt was then made by the use of enemata and by pressure on the opening in the bowel to determine the passage of the intestinal contents *per viam naturalem.* This failed to secure closure of the opening, and a second operation became necessary. On 20th May the wound was re-opened, the adherent bowel separated from the margin, and the opening in the bowel closed by a series of Lembert sutures of fine silk. The edges were not pared, they were simply turned in. The wound in the

parietes was closed with silkworm gut. This second operation also was satisfactorily recovered from, and the patient is now in good health, and has gone back to his former arduous employment as a puddler.

Dr. HUME also described a case of gastro enterostomy, the particulars of which will appear in a subsequent number of the Transactions.

SET OF INTUBATION INSTRUMENTS.

Dr. ROBERTSON: These instruments are designed both for adults and children.

In using these tubes there are two points worth remembering. If the tube has been got into the larynx, the patient is unable either to cry or cough. In adults, these tubes are fast superseding all other instruments for all forms of laryngeal stenosis. In either young or old, there are few forms of laryngeal obstruction in which their use is not followed by as good results as by trœcheotomy.

IMPERFORATE RECTUM.

Mr. BLACK: This specimen was removed *post mortem* from the body of a male child three weeks old. He was admitted into the Children's Hospital under my care on the second day after his birth, having, as the nurse said, passed no motion since birth, and that black stuff had been passed at times per urethram.

On examination, it was found that there was complete absence of anus, the perinæum was smooth from scrotum to coccyx, and there was no dimple corresponding to the site of the anus. The belly was much distended and tympanitic, and the child was vomiting everything given to it. He was placed under chloroform and the ischio rectal region freely opened in the middle line. After careful dissection for nearly two inches, and no bowel being found, anterior colotomy in the left iliac region was performed.

The sigmoid flexure was readily found in its normal position, drawn well down to tighten its mesentery, and then carefully sutured to the abdominal wall. The bowel was then freely opened; a large quantity of fæcal matter escaped. The case did well and without bad symptom until the day of his death, when he developed erysipelas of the anal wound, and died in four hours. The specimen is a very interesting one The sigmoid flexure below the colotomy opening is narrowed and shrunken for some distance, but it terminates in a distended sac, which communicates with the prostatic portion of the urethra by a small opening, and apparently the urethra is continued forward from the same spot, but we have not been able to pass a bristle through it either from the proximal or distal side.

The specimen has been presented to the College of Medicine Museum, and has been prepared for mounting by Dr. Howden.

SPECIMENS.

Dr. MURPHY: (1.) The first specimen I have the pleasure of exhibiting to-night is a good example of elephantiasis of the clitoris, which I removed, some months ago, from a patient æt. 45, kindly sent to me by Dr. Wood. This large mass was rapidly removed by scissors, the vessels being picked up with pressure forceps, and then tied. Its removal presented no difficulty.

(2.) For this specimen of ruptured tubal pregnancy I am indebted to Dr. Beveridge. It is a very beautiful specimen of rupture, about the 12th week. She was sent into the Infirmary in a very collapsed condition—a firm mass could be felt in pelvis, with a peculiar soft patch forming a sort of dimple just inside the rectum; an indistinct mass in the abdomen could be recognised. It was diagnosed as probably a case of ruptured tubal gestation, clearly a case to be explored. On opening the abdomen I found the intestines over the pelvis matted together with recent lymph, and thus forming a spurious cyst. On these being separated, I removed more than a quart of clotted blood, and found the tube pointing downwards and backwards and ruptured as it lay on the rectum, thus giving rise to the dimple I had felt. The tube was easily removed, and a drainage tube inserted and the abdomen closed; but though she lived four days, she never really rallied. On section of the tube, the placenta was still present, as may be seen in the specimen, but the fœtus had escaped.

(3.) This very large pyo-salpynx I removed in July from a girl who had been under my observation, through the kindness of Drs. Collie and Galletey, for some four years. When first seen she had a tumour the size of a four months' pregnancy. Before an accurate diagnosis was made, the symptoms not being urgent, a copious discharge of pus occurred, and the tumour completely disappeared, leaving the uterus perfectly movable, and all the organs of the pelvis, as far as could be ascertained, quite sound. Her general health became excellent, and for about two years she performed her duties as a barmaid. She then became ill again, another tumour formed, which, after some time, again disappeared with a discharge of pus. This was again repeated with a like termination, and about February last a tumour formed for at least the fourth time and continued until July, when she was admitted, under my care, to the Sunderland Infirmary in a very hectic and exhausted condition, most anxious to have any operation for her relief performed. On opening the abdomen I found a tumour about the size of a four months' pregnancy, closely adherent to intestines on all points except a small patch about the size of a shilling. I tapped it through this, and removed a large quantity of cheesy pus. I then found it was firmly adherent on all sides to pelvis,

bladder, intestines, &c., &c., and I was strongly pressed by several of my friends to leave it *in situ*, to content myself with drainage. It would have been very comforting to me if I could have done so, but, from what I have seen of drainage of tube cases *in situ*, and their treatment by what may be called *howking them out*, I am fully convinced the bolder is the safer course; and perhaps you, Mr. President, and several of our members who were present, will bear me out when I state that every case of pyo-salpynx can be removed; and even if an exceptional case die on the table, it is better to run the risk of such an exceptional catastrophe than that many cases should be left, as incomplete operations to live for a few weeks or months in misery.

The operation took a considerable time, and was one of very great difficulty. She bled very freely from the practically universal adhesions. A drainage tube was passed into Douglas' pouch, and the abdomen closed. Oozing went on all night and for next day to a considerable extent. Her temperature at 10 p.m. on night of operation was 95·3, pulse about 150, almost imperceptible. Next morning things looked better, and from henceforward I had no anxiety about her. She is now robust and healthy.

The next specimens (4) and (5) are two uteri, one a case of Porro's operation, and the other of vaginal hysterectomy, notes of which will be found in this volume of the Transactions.

(6.) Is a case of sarcoma of the ovary, which I "howked out" for my friend, Dr. Lyon, at Herrington. The small tumour I had no difficulty with. This amount of *debris* I dug out, and I also removed specimen.

(7.) A secondary growth in the omentum. The patient made a rapid recovery, and is still well; but I fear her life must be a short one.

(8.) An enlarged and inflamed ovary and tube, which was causing most intense suffering, which I removed from a patient kindly sent to me by Dr. Berkely Martin a fortnight ago. The patient is now well, and quite free from pain.

(9.) Dr. Murphy further exhibited seven uterine polypi, which he had recently removed, and several excellent drawings illustrating the different positions assumed by polypi, and pointed out that as long as they were within the uterus they were sessile, and had better be removed by enucleation. When they had a pedicle they might be twisted off or removed with an ecraseur.

Dr. A. E. Morison asked Dr. Murphy whether in the case of tubal gestation the fœtus had been found, or whether any traces microscopically were present of placenta. Many cases of hæmatocle resembled ectopic gestation in their symptoms and signs, and he thought the only conclusive evidence was the presence of fœtal structures. Two cases he had seen recently demonstrated this; but

in one instance, at the operation where the tube was removed, and in the other at the post mortem, no trace of fœtus or placenta could be found. Three weeks ago he operated on a case presenting similar peculiarities to Dr. Murphy's. The tube had ruptured, and the blood had extravasated into Douglas's pouch, but was shut off from the general peritoneal cavity by adhesions. The tube was removed with fœtus and placenta, and the patient recovered.

Dr. MURPHY, in reply, said that the placenta in this was seen.

TUMOUR OF KIDNEY.

Dr. HUME shewed a tumour of the kidney, probably sarcomatous, which had been removed that day by the abdominal operation from a female patient aged 54. The tumour was apparently growing from the upper portion of the kidney, the rest of the kidney being applied to the tumour, but hardly involved in its growth. The pelvis and ureter were not involved, and the kidney had evidently been capable of performing its share of function. The urine had contained blood for only two or three weeks, and the tumour had been noticed by the patient since the beginning of the year.

MICROSCOPIC SPECIMENS.

Dr. LIMONT shewed (1) the Filaria sanguinis in the blood of man, and also in the blood of the mosquito (the host). (2.) Fragments of laminated cyst wall of hydatid, the laminæ shewing the pectinate markings; also hooklets from hydatid.

POSTICUS PARALYSIS IN INFANTS.

By W. ROBERTSON, M.D., Surgeon, Throat and Ear Hospital, Newcastle-on-Tyne.

Within the last five years I have met with, from time to time, cases of a condition in children of ages varying from three weeks old to eighteen months to which the above term may be provisionally applied. These cases, six in all, of which I have notes, survived and got rid of the disorder with one exception, and in this case a fatal termination was brought about through exposure to the east winds at a coast resort. A brief clinical account of these cases will illustrate the condition to which I refer.

Case 1.—Charles H., æt. 2 years, S.B., 17/8/91, was brought to me during June last suffering from noisy difficulty and prolonged inspiration. Expiration was quick and easy, and voice unaffected. There was slight cyanosis increased on exertion as was also the inspiratory distress. The ribs were much deformed, the lateral region of chest being greatly indrawn. The epigastrium as well as soft parts above clavicle were retracted during inspiration, and the larynx was observed also to move unduly during inspiration. Examination of throat shewed an extreme state of pharyngitis extending to the vault. The statement given by the mother was that the child began to suffer from what one doctor called chronic croup,"a very good descriptive term, for the condition superficially examined resembled exactly that of a child in moderate distress from typical croupous breathing," after some ill-defined pulmonary attack when it was six months old. Since then the child has been a continual source of anxiety, more especially during the night and morning just after awakening when great respiratory difficulty was generally experienced, a discharge of mucous giving some relief. No examination of larynx could be made with laryngoscope. As far as could be made out the chest was normal, the stenotic murmur, however, obscuring the nature of the vesicular murmur to a great extent. The child was put on bromide of ammonia, a nasal alkaline spray, and resorcin in mineral oil to drop into nose. A week or two of this treatment improved matters but slowly.

17/7/91.—I intubated, retaining the tube for one hour. This was followed by more decided improvement. Shortly after this I scraped out postnasum with finger nail, and recommended a continuation of spray and resorcin drops.

25/7/91.—Child intubated again, and tube retained for two hours, during the most of this time the child slept.

20/8/91.—Since last seen the child has greatly improved. The inspiratory dyspnœa has almost entirely disappeared. It now rests well at night, and has no difficulty whatever on awakening in the morning.

Case 2.—J. N., æt. three weeks, H.—This baby, when first seen, was found to be suffering severely from persistent inspiratory dyspnœa, dating from a few days after its birth, and most pronounced at nursing. Its respiration was so noisy that it could be heard in the next room. Examination of throat shewed a thickened granular condition of mucous membrane of oro-pharynx. No fever or enlarged glands about neck. Child fairly nourished.

Treatment.—Am. bromide, nasal spray, and resorcin drops for nose. These remedies were used twice daily for one month when, practically, the child was well. Subsequently the remedies were used thrice weekly for three months. I saw this cdild nine months afterwards and found it plump and well. The mother states, however, that a slight return of the affection now and then disturbs the chiid, for an hour or so at a time, on exposure to cold.

In another case: Gustave Adolphe S., when six months old, began to suffer from persistent inspiratory dyspnœa, which was aggravated by any excitement, and also by nursing. The condition persisted for months, becoming intensified as time went on. At the age of one year, its state was grave indeed, and it was blistered over the occiput, it being thought, evidently, that some cerebral trouble existed. Several attacks of what were termed general convulsions were observed. This case was not under my care at any time, and I merely mention these facts about diagnosis and treatment, &c., to shew how entirely the disease may be misapprehended, and how any treatment but that applied to the local conditions will fail to cure. After weeks of unnecessarily severe treatment, the child recovered from the laryngeal affection, but remains weak and delicate. It still suffers from postnasal growths and is now deaf.

The case that succumbed came before me early in my experience of this condition. It began to suffer when it was only a few weeks old, and displayed the usual symptoms of the condition up to the time of its death, at the age of six months. It was removed to an east coast resort during the prevalence of east winds and there caught pneumonia, which proved rapidly fatal. The other cases resemble so much Case 2, that further detail is unnecessary.

Remarks.—On surveying these cases, it will be observed that the earlier, in the course of the disease, the case comes under treatment the less the difficulty experienced in bringing about a cure. In three such cases this was rapidly effected. In those cases, however, where delay has taken place, and where no appropriate treatment has been adopted, secondary complications set in

and greatly increase the original state of posticus paralysis. The first two cases especially are typical of the condition in question, and as well illustrate the grades of the affection, that is, a state of persistant dyspnœa exclusively affecting inspiration. Judging from the character of the laryngeal symptoms in these cases, bi-lateral impairment of the postici muscles suggests itself. The power to cough, the comparatively clear voice retained in all these cases, the length of time over which the disease extends, and the deepening of symptoms as that goes on differentiates the condition from affections of the adductors: for example—spasm of the glottis. These same qualities equally disprove the existence of papillomata in any of the cases referred to this condition, for in papillomata it is recognised that there is a great frequency of alteration of voice. In none of the cases were there noticed evidence of cervical or thoracic tumour, or any pressure on vagi or recurrents. Diphtheria was carefully eliminated in each case.

Etiology.—In considering this aspect of the disorder reference must be drawn to the generally associated diseased states of postnasum and pharynx, and the age of the cases at which it is most exclusively met with. Looking at the pronounced symptoms in this condition, it would seem that the only probable explanation of the phenomena is to suppose a bi-lateral adductor paralysis, and that the subsequent gradually increasing severity of the symptoms, where the condition has been in existence for some time, is to be attributed to "secondary contracture" of the adductors, a common enough phenomena in nervous pathalogy. Irritation in the regions of the postnasum pharynx, etc., is probably transmitted to the medulla there exciting and exhausting the accessory nucleus, and thus leading to depraved innervation of the muscles in question. Colateral catarrh of the mucosa covering the postici muscles may also act injuriously on these structures.

Treatment.—From the above indications, treatment on the proper lines must be rigorously carried out in order that the child may be rescued before secondary contraction sets in, which demands more serious steps to be taken. In the earlier cases met with I usually prescribed am. bromide, tepid sponging, etc., but of late have treated more rigorously the postnasal and pharyngeal conditions, and with the best results. Where granulations are felt in the postnasum these are crushed or otherwise destroyed. In a severe case like Case 1, I should at once intubate, because, apart from the relief to respiration for the time being, the insertion of the tube seems to have a rousing effect on the general musculature of the larynx. It seems to dissipate any secondary contraction that may have supervened during the course of the malady, if this has existed long enough to allow of secondary contracture of the constrictors to have taken place.

CASE OF PORRO'S OPERATION.

CASE OF VAGINAL HYSTERECTOMY.

By JAMES MURPHY, Assessor in Clinical and Operative Surgery
University of Durham, &c.

Mr. President and Gentlemen,—I have much pleasure in bringing before your notice, to-night, two operations which I have recently done, which have not often been undertaken in the district included in our Society. The first, a Porro, I believe is the only case hitherto performed in this district; and the other, a vaginal hysterectomy for cancer, was first, as far as I know, successfully done by my friend, Dr. Albert Morison, of Hartlepool, and next by my friend Mr. Williamson, who, a few days ago, had a second case, which is going on most favourably. Possibly other successful cases have occurred, but I have not heard of them, and it is in the hope that these operations may become more frequent that I venture to submit the notes of my cases.

Case I.—*Porro's Operation.*—On the morning of July 11th I was asked by my friends, Drs. Beveridge and Blair, to see Mrs. P., æt. 32, married—one miscarriage at the fourth month, second pregnancy at full time—who had been in labour for ten hours. On examination I found the lips of the os protruding through the inlet of the pelvis, the membranes unruptured protruding through these lips, but no presentation could be felt. The promontory of the sacrum approximated so closely to the pubes that two fingers, placed side by side, could not pass between, and the promontory was higher than the pubes. So that if a line were drawn from one to the other, and another line drawn at right angles from its centre, it would pass through the abdominal wall an inch above the pubes instead of through the umbilicus. In other words her conjugate diameter was less than an inch and half, and to our minds—even if we had wished to do it—craniotomy was excluded. Our course, therefore, was very clear, we were bound to deliver the child by abdominal section. Being absolutely agreed on that point we laid the case before the patient, and she very naturally absolutely refused to submit to the operation—"She would rather die first;" but she didn't, as after a few minutes' conversation she "placed herself in our hands." And here, Mr. President, you will permit me to remark that, for a man to have any success as an operating surgeon, he must have three qualities:—1st, he must be able to get his brother practitioners to send him cases for an opinion; 2nd, he must be able to get these patients to submit to operations when necessary; and 3rd, he must be able to do his

operations with a considerable amount of success. If he fails in any one of these, he had better give up this worrying if somewhat interesting branch of our profession, and try another department—but this, sir, is a digression. We soon talked our patient over, and she was at once removed to the Infirmary. Immediately after her arrival there, she was placed under the influence of chloroform, a carbolic spray was turned on to her abdomen, and I made an abdominal section extending from some three inches above the umbilicus to within an inch of the pubes. I then turned the uterus completely out through the incision, placed an india-rubber ligature round the lowest portion of the uterus, protected the intestines by a large flat sponge, and asked my colleague Dr. Morgan to tighten the ligature the instant I cut into the uterus. This he did. I made a small button-hole incision into the centre of the uterus, through which I passed the index fingers of both hands and tore the uterus transversely with my fingers, and flicked the fœtus out in a short space of time. The infant was handed to Dr. Beveridge, to whose kind attention it owes its life, after the umbilical cord was cut. I then applied Tait's clamp to the uterus below the elastic ligature, cut off the uterus, closed the abdomen, dressed the wound in two parts with iodoform and wood wool. The upper portion was not removed till the sixth day, when I removed the sutures. The lower portion was dressed on every second day, and the clamp screwed tighter. It cut through on the 14th day, and the after-history of the case is she never had a bad symptom, and she and her child are now alive and well. (October.)

The other case which I wish to submit to you, I am indebted to my friend Dr. Stobo, of Southwick, for. Mrs. H., æt. 42, Multipara, has had for months hæmorrhage, fœtid discharge, pain, &c. On examination, a characteristic epithelioma of the os and cervix was present. The vagina was not implicated. The uterus was movable, and could be pulled down; I, therefore, advised that a hysterectomy should be done. She consented, and was admitted into the Infirmary under my care, on July 15th. She was placed under chloroform. Seizing the uterus with a vulsellum, I pulled it forcibly down and made a circular incision right round the cervix through the mucous membrane. I then partially with my finger and partially with scissors separated the bladder in front and the rectum behind from the uterus, leaving the broad ligaments untouched. In this way I pushed my finger into the peritoneal cavity, on both sides of the broad ligaments, and then secured them with Greig Smith's clamps, and cut off the uterus. There was no hæmorrhage, no vessel was tied, the clamps were removed in 40 hours, and the woman gave me cause for no anxiety afterwards.

Now, sir, these are my cases, and I submit that there may have been a time when it was a question whether one should do a craniotomy or let the patient die undelivered. After this there may have been a time when one might fairly discuss whether a craniotomy or an abdominal section should be done, but these days are past. There are very many cases I have had through my hands, the treatment of which I regret. I look back on the treatment of other cases with pleasure; but I have a peculiar pleasure in knowing that I have never done or been at a craniotomy on a living child, and if one meets with a case of narrow pelvis at term, in which it is impossible to deliver a living child, the question now to decide is not shall we do a craniotomy or an abdominal section, but shall we do a Porro or a Cæsarian section. On that question I have a perfectly open mind, and I do not think we have sufficient material before us to decide it.

Porro's operation, as I did it, is as simple and easy an operation as can occur to one in abdominal surgery. Porro removed the fœtus while the uterus was in the abdomen, and did not use the elastic ligature. By removing the fœtus while the uterus is *in situ*, you save an inch or two of your abdominal incision; but by drawing the uterus out of the abdomen, you have complete control of the hæmorrhage by using the elastic ligature, and in my case there was absolutely no active hæmorrhage, and the risk to the child is *nil*, provided once the ligature is applied you open the uterus rapidly and at once extract the fœtus. This case was—unknown to me—timed, and the time from the beginning of the operation to the extraction of the fœtus was $8\frac{1}{2}$ minutes. But the time when rapidity is essential is after the ligature is applied. My friend Dr. Murdoch Cameron has done 14 cases of Cæsarian section with two deaths, and time will decide whether it or Porro's operation is the better one. A successful Porro has been done by removing the clamp on the third day, and letting the pedicle fall in. Dr. Milton, of Cairo, has done a modification of a Porro, similar to Schrœder's hysterectomy for myoma.

In a similar way, the question whether a cancerous uterus should be removed by abdominal section or by the vagina is now settled. By the vagina is far the safer way, but how to control the hæmorrhage is still an open question. I used Greig Smith clamps, and have every reason to be satisfied with them. Greig Smith himself has abandoned them in favour of ligature. M. Péan places a pressure forceps on every vessel, and leaves it on for 48 hours; but whatever method you adopt, when you find a uterus affected with malignant disease confined to the uterus, and where that organ is movable, and can be pulled down, remove it.

NORTHUMBERLAND AND DURHAM

MEDICAL SOCIETY.

SESSION 1891-92.

NOVEMBER MEETING.

The Second Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on the evening of Thursday, November 13th—Dr. Gowans (President) in the chair.

NEW MEMBERS PROPOSED.

L. L. Bailes, M.B., St. Thomas' Crescent.
Holdsworth Davies, North Bridge Street, Sunderland.
J. G. Houseman, M.D., Houghton-le-Spring.
J. Marshall, L.R.C.P. & S., Wentworth Terrace, South Shields.
Wm. Marshall, M.B., C.M., Black Hall Mill, Ebchester.
— Pearcey, North Bridge Street, Sunderland.

LETTER FROM LIBRARY COMMITTEE.

The Secretary read a letter from the Library Committee, acknowledging the receipt of the donation of twenty-five guineas, and drawing the attention of members of the Medical Society to the "Recommendation Book," in which they may enter the names of books they wish to be placed in the Library.

Mr. Rutherford Morison gave a demonstration of the uses of Senn's plates.

PATIENT AFTER REMOVAL OF ASTRAGALUS FOR EXAGGERATED TALIPES EQUINO-VARUS.

Dr. Black: This little boy, aged 6 years, was admitted into the Children's Hospital under my care on August 1st. He was suffering from severe congenital club-foot. These casts shew exceedingly well the extreme condition of the deformity; the feet were so inverted as to form almost a right-angle with the leg, the heel was drawn up, and the feet were much shortened and arched by contraction of the structures on their plantar aspect. Large bursæ had developed over the prominent bones on the dorsum and

outer side, and the boy walked by lifting one foot over the other. As there was evidently contraction of the calf muscles, and of the fasciæ in the sole, with most probably deformity of the astragalus, I determined to operate on one foot only and be guided by the result obtained. I removed the astragalus by a curved incision extending from the site of the astragalo-scaphoid joint downward and backwards to the external malleolus. The astragalo-scaphoid joint was then opened, the astragalus fixed with a sharp hook and separated from the os calcis.

The tendo achilles was next divided and finally a tenotomy knife was introduced across the sole immediately beneath the skin and the whole of the resisting structures divided to the bones. The foot readily assumed a fairly normal position, was placed on a back splint with foot piece and gave rise to no anxiety during the remainder of the treatment. Having obtained a satisfactory result with the right foot, the left was operated upon in a precisely similar way and has done equally well. The boy now walks on the soles of his feet and will, I hope, soon be able to wear an ordinary pair of boots.

Mr. Rutherford Morison congratulated Mr. Black on the good result he had obtained. The feet looked well and promised to be useful. He had tried two operations for aggravated club-foot. One by removal of a wedge from the tarsus—base outside—the other by excision of the astragalus. The latter gave a better result, but neither was quite satisfactory. The adduction of the foot was corrected by the first, but the inversion remained. By the second the adduction was corrected but not the inversion. It was necessary in such cases to remove a compound wedge—vertical and transverse—to remedy both displacements effectually.

PATIENT AFTER TREPHINING FOR INTRA-CRANIAL DISEASE.

Dr. Black: This boy, $3\frac{1}{2}$ years old, was admitted into the Children's Hospital under my care on September 27th, 1891, with a history of a fall two years previously, followed by gradual development of focal symptoms.

There is a history of syphilis on the maternal side and the child was in the Great Ormond Street Hospital under Dr. Abercrombie, with whom I have been in communication, with well marked syphilitic manifestations.

The child enjoyed good health (with the exception of an attack of measles when 11 months old) until the fall when a year and nine months old. He fell from his nurse's arms on to the floor, striking the back of his head. There was no wound, nor was he unconscious. Gradually he became dull, failed to recognise people he had known, and forgot the little words he had been able to say. Nine months previous to admission he had a "fit," which the

mother describes as localised in the left arm and leg. These gradually increased in frequency and became a daily occurrence. On some days he had as many as thirteen or fourteen fits.

On his admission to Hospital we found him a well-nourished boy, with vacant imbecile expression. His temper was irritable; he paid no attention when spoken to; he was, as far as we could make out, blind in the left eye and had defective vision in the right, apparently on the temporal half of the field; his pupils were equal and contracted equally to light; the discs, with the exception of the right, which was rather white, were clearly defined and normal.

At times he cried out as if in pain, but there was never any vomiting.

His left arm and leg were weaker than the right; his left leg was dragged in walking and he made no attempt to hold things in the left hand.

On the average he had from two to three fits in the day. These began by rigid spasm of the left arm and leg, by rotation of the head and eyes to the left; he fell and apparently lost consciousness; and the fit lasted only a minute or two.

With these symptoms it was determined to trephine over the right motor area.

The scalp was closely shaved, washed with soap and water and turpentine, and the motor area mapped out on it with iodine after Godlee's method the evening before operation and encased in a carbolic acid dressing.

I began the operation by making a small incision through the scalp, in the position at which it was intended the pin of the trephine should be placed, and, with a small drill, made a similar puncture into the bone. A semi-lunar flap was then raised with the base downwards; the periosteum divided and reflected by a crucial incision, and a $\frac{3}{4}$in. disc of bone removed; the dura mater bulged into the opening and was non-pulsating. I next removed another $\frac{3}{4}$in. disc, in a direction downwards and forwards from the first one; removed the intervening bone, and obtained a clear view of the swelling. The dura mater was next divided by a longitudinal incision, and an opaque, whitish-looking membrane, non-pulsating, presented. This was incised, and found to be lined by a layer of organised lymph about $\frac{1}{8}$in. thick; on opening this, clear, yellowish-looking fluid escaped in considerable quantity. It was then seen that the motor area underneath was bulged in, or concave instead of being convex. On closer examination, it was evident that the fluid covered the whole surface of the hemisphere. I could reach with my finger the orbital plates in front, the petrous portion of the temporal at the side and some distance posteriorily. There was no distinct limiting membrane; there was no evidence of tubercle to the naked eye, nor any appearance of blood clot. A

drainage tube was inserted, the dura mater sutured, the periosteum replaced, and the scalp carefully sutured. Chloroform was the anæsthetic administered, and one-eighth grain of morphia was administered two hours prior to operation.

He remained drowsy aud unconscious for three or four hours after operation; and, after the effects of the anæsthetic had passed off, for six hours or so there was well-marked rigidity of the left arm and leg, which then passed off, but recurred at intervals during first twenty-four hours. Considerable quantity of serous fluid drained away, necessitating the packing of the dressing from four to six times in the twenty-four hours. This fluid, when examined, was found to be slightly acid, clear straw colour, shewing no trace of sugar, but containing a large quantity of albumen.

After the first twenty-four hours, there was no return of spasm until October 6th, when a longer drainage tube was inserted; this seemed to irritate the motor area, as he had, during the night, violent spasm of the left side, which ceased soon after the removal of the tube.

Since that time, although large quantities of fluid have drained away, he has had no return of the convulsions, he has gained power in the left arm and leg, he is now up and about, takes his food fairly well; but it remains for time to shew whether the operation will be followed by permanent good results, and whether his damaged brain will be able to resume any of its lost powers.

In the absence of any blood clots and limiting membrane, I am inclined to think the case one of chronic meningeal effusion, the result of the injury.

Dr. Limont said he could not but think that the fluid in Mr. Black's case came from a sub-dural cyst which had developed in connection with blood clot, the latter being due to the injury described. Mr. Black objected to this explanation on the ground that the fluid was not encapsuled; but that this is very difficult to be sure of is seen when one refers to recorded cases. Dr. Quain reported a specimen removed from the so-called arachnoid cavity of a patient who some years before his death received an injury to his head and afterwards suffered from fits.

Post-mortem.—Dr. Quain discovered a cyst measuring 5in. by 3in., and came to the conclusion that it was due to changes in the blood effused at the time of the injury.

In Ziemssen's Encyclopædia is recorded another case, where an old man, already failing mentally, had a severe fall and became hemiplegic and even comatose. He, however, recovered from his symptoms, but was killed six months later. On examination, *post-mortem*, a cyst was found covering two-thirds of the hemisphere and depressing the brain substance. In Dr. Black's case he would expect to find the same condition.

Dr. Oliver : I had a lad, 16 years of age, under my care a few years ago who, as the result of an injury to his head, suffered from frequent epileptic fits. He had a painful spot on his head, and as medicines failed to diminish in any way the frequency of his seizures my then colleague, Dr. Hume, at my request, trephined him. Similar kind of fluid to that which Dr. Black has alluded to as coming away in his case escaped in mine. The result of the trephining in my case has been most satisfactory. The boy at the present time is quite well.

Dr. Black: I think the explanation of the case as one of meningeal hæmorrhage a possible one ; but the absence of remnants of blood clot and limiting membrane seems to me against such a theory.

CASE OF PSEUDO-HYPERTROPHIC PARALYSIS.

Dr. Oliver : This boy, aged 11 years, is suffering from a well marked form of nervous disease, but one not frequently met with. There is nothing whatever in his family history which points in the least to a hereditary influence. The disease began to shew itself three years ago. It was noticed that he walked with difficulty ; that he frequently stumbled, and latterly, after falling, that he could not easily get up again. The calves of his legs, as you see, are enormously developed ; they are hard and massive, stand out boldly when viewed in profile and in strong contrast with the emaciated thighs. The spine is incurved too in the dorso-lumbar region, throwing the belly distinctly forward. He walks, as you notice, with a waddling gait and exhibits, when he is placed on the floor and told to rise, the phenomenon known as "climbing up his knees." The knee jerk is lost. The probability is that in his case there is some congenital defect in the grey matter of the spinal cord. This rather than a recent lesion having been met with in most of these cases.

Dr. Drummond demonstrated several interesting nervous cases, illustrating the chief varieties of spinal ataxy. The first was an example of locomotor ataxy in a young man, 24, with many points suggestive of Friedreich's hereditary ataxy, *e,g.*, lateral curvature of the spine, early development of the ataxic symptoms (at 21 years), lateral disposal of the feet in walking, etc. He had a urethral chancre eight years previously.

The second was an unusal case of Friedreich's disease—a boy, aged 11, with marked inco-ordination, slight lateral curvature of the spine, paresis of the arms, relaxation of bladder sphincter, mystagmus, etc.

The next was an excellent example of ataxic paraplegia in a miner, aged 40.

The fourth was a man, aged 41, with ataxic paraplegia, and some of the symptoms of general paralysis of the insane.

DR. A. E. MORISON.

1. *Uterus removed by Vaginal Hysterectomy.*—This specimen was removed from a married woman, æt. 39, whom I saw for the first time on June 10th, 1887, complaining of pain in the back and watery discharge from the vagina. Patient has had five children, the youngest twelve years of age. For six months she has had "whites" which, during the last three months, have become sero-sanguinolent. On examination, per vaginum, there are characteristic signs of cancer of the cervix, and it seems limited to that. The operation was performed on June 30th. The cervix was pulled down with volsella, and the vaginal mucous membrane was divided posteriorily, anteriorily, and laterally. The parametrium was separated with the finger nail. The uterus was then retro-verted, and the broad ligaments transfixed and tied with silk. The patient never had a bad symptom. The highest temperature was 100 deg. She lived for eighteen months, and then died of malignant disease of the liver. Microscopic examinalion shewed the growth to be a columnar-celled epithelioma.

DR. A. E MORISON.

2. *Specimen of Ectopic Gestation.*—Removed from Mrs. L., æt. 34, mother of seven children, the youngest being sixteen months old. Consulted me on September 9th, complaining of a dragging pain in the right side, and constant and excessive loss. She has never felt well since the birth of her last child. Four and a half months ago, she began to menstruate, and was regular for three months. After this, menstruation became irregular, stopping for a few days and recommencing. When this began, she had a very severe loss, so that her neighbours told her that she had had a miscarriage. Six weeks ago, while black leading the grate, she was seized with a very severe pain in the lower part of the abdomen, and felt so faint that she had to be carried to bed. The pain continued off and on, but was never again so violent. There is colostrum in both breasts, and she has morning sickness. The right kidney is movable, causing the dragging pain in her side.

Per Vaginam.—The uterus is jammed forward; cervix soft; os patulous. Behind and to the left of the uterus is a semi-fluctuating mass about the size of an orange, immovable and slightly tender. Along its under surface is felt a band. Bi-manually it is indistinctly felt.

Operation.—September 15th.—On entering the peritoneal cavity, the omentum was adherent to the abdominal wall, and the intestines in the pelvis were matted together. A mass of adhesions was met in Douglas's pouch, and, on breaking through these, the hand came on a cavity filled with blood clot. The right tube was twisted over to the left, distended and adherent. The adhesions

being broken down, it was pulled to the surface and found to have ruptured. The tube was transfixed, tied, and cut off. The abdomen was washed out and a tube inserted. For some days the patient was very ill, but ultimately rallied and went home on the seventeenth day.

The specimen shews the fœtal membranes intact, the ruptured tube, and placenta.

Mr. Rutherford Morison shewed a specimen of blood tumour in the fallopian tubes, which he considered an example of early extra-uterine gestation.

The patient, a lady of 23, had one child one year and seven months old.

There was a history of peritonitis following rheumatic fever fifteen months ago, and from the earliest menstruation she always had pain at the periods.

Menstruation had been regular when she missed a period and went twenty-four days over the usual time. Then came a flooding. This was followed by pelvic peritonitis and fever for a few days. Similar attacks were twice repeated when she came under my observation. On examination a rounded adherent elastic tumour the size of an orange was discovered in Douglas's pouch.

At the operation, a week ago, this tumour was removed by abdominal section together with both ovaries and tubes.

The tumour is adherent to the inside of the fallopian tube which was probably torn during extraction. It is covered by a thin membrane and contains a firm laminated clot, which when fresh was of different colours, shewing old and recent hæmorrhages. The right ovary is firmly attached to it and the portion of fallopian tube not involved is large, vascular, and thick walled.

The left ovary is double the normal size, studded throughout with cysts, and the fallopian tube thickened, reddened, roughened from torn adhesion and with the fimbriated extremity adherent to the diseased ovary.

The patient has made an excellent recovery.

Dr. Vann : Mr. President and Gentlemen,—The following brief notes of a case of lympho-sarcoma recently under my care may prove of some interest to this Society.

I. P., aged 32 years, consulted me in early part of July of the present year, complaining of a swelling in the right axilla. He had noticed a lump in that region for rather more than three months, but latterly it had increased in size more rapidly and become painful. It was at this time an ovoid swelling, about 2in. in length by 1in. in breadth, and was evidently of glandular origin.

Belladonna and other applications were used topically and syrup of the iodides taken internally. The swelling continued, however,

slowly but steadily to increase, and as the patient's health began to suffer I advised him to have the mass of glands excised. The operation was, however, postponed for two or three weeks, chiefly owing to hesitation on the part of the patient.

He was admitted into Hospital on August 9th, and I removed the tumour on the following day. The glandular mass on section shewed points of caseous degeneration and appeared to me of tubercular nature. Microscopical sections made subsequently shew it to be in the main a round-celled sarcomatous growth. The wound healed by primary union, and the patient left the Hospital on the ninth day.

Here I must remark that a day or two before patient's admission I noticed a small gland about the size of a pea three or four inches below the left nipple and another of similar size in left groin.

After leaving Hospital he went to the seaside for ten days, and on his return I was alarmed to find several small glandular enlargements in different parts of the body, chiefly on the front and back of the chest. He was now given arsenic and other remedies, but the glands continued to enlarge, and it became evident that the disease was of a malignant nature. Dr. Drummond about this time saw the man and was of opinion that the case was undoubtedly a true lympho-sarcoma, and this view was confirmed by examination of sections received a few days later.

The swellings continued to increase in size and number, especially in the axillæ and over the front of the chest, and before long there was scarcely a square inch of the surface of the body entirely free from their invasion. The skin over many of the swellings became dark and congested, but no ulceration occurred.

The patient gradually sank and died on October 27th.

There was no *post-mortem* examination.

GALL STONES.

Mr. Rutherford Morison shewed a number of gall stones, removed by cholecystotomy.

The patient was a woman 41 years of age, who had her first attack three years ago, after the birth of her twelfth child. The attacks were repeated once in six weeks, and with each she was confined to bed for ten days. The characteristic pains were present, and jaundice followed every attack. Latterly the jaundice has not disappeared, and an attack has been brought on by any exertion, such as the performance of trifling household duties. A variety of treatment had been tried, but only temporary relief was given. She felt so ill that she had often "prayed for death," and was anxious to have anything done to get relief.

The operation was done in the ordinary way by an incision through the linea semi-lunaris, and the stones exhibited removed.

A small one discovered in the cystic duct was left after all justifiable efforts had been made to dislodge it.

The hæmorrhage was small in amount, and the patient's recovery uninterrupted, in spite of the jaundice, which disappeared in ten days after.

Dr. Lambert said Mr. Rutherford Morison was to be congratulated on his life-saving operations. He (Dr. Lambert) had performed cholecystotomy, and hoped to bring cases before the Society before long. When he looked back upon a practice of over thirty years, the number of persons who annually died from gall stones whose lives could have been saved now by the operation of cholecystotomy, it was appalling, for it was not a very difficult operation, or a dangerous one. So much for the brilliant advances of the science and art of surgery.

GALL STONES PASSED AFTER MANIPULATION OF GALL BLADDER.

Dr. Limont: I shew here some gall stones, which Prof. Bedson reports to consist almost entirely of cholesterin. In the history of the case there is nothing noteworthy. I shew them mostly with the view of eliciting an opinion as to when surgical interference should be had recourse to.

In the case of stone in the kidney fairly definite rules are followed out; one follows certain treatment, and, if that fails, a surgeon is had recourse to. But in the case of gall stones I think our ideas are scarcely so clear.

There are three ways, apparently, in which gall stones may be treated. (1) By drugs; (2) manipulation; (3) operation. In any case which of these are we to adopt? We may at once admit, I think, that operation is the only recourse in cases where there is diagnosed rupture of gall bladder, empyema of gall bladder, suppuration round about gall bladder.

In all other cases, however, probably medicinal treatment—*e.g.*, Carsbad salts, &c., with regulated diet, should be tried. If such treatment be faithfully carried out, we may expect to get rid of the symptoms in many cases.

Then comes the vexed question of the efficacy of olive oil in cases of recurrent gall stone, colic, and jaundice. I have paid considerable attention to this subject for several years, and I am forced to the conclusion that in many cases it has a wonderfully good effect. There is not the slightest doubt that the pains and the jaundice disappear, and return only after long intervals or not at all. I am quite familiar with the pseudo stones passed in these cases; they are concretions of fatty acids, derived from the oil. I lay no stress on these, but simply on the fact that the patients are in many instances relieved from pain, jaundice, and other troubles of gall stones.

Well, suppose things fail us, are we justified in having recourse to manipulation of the gall bladder? Dr. G. Harley is the great advocate of this method. He recommends it for the removal of gravel, inspissated bile, and gall stones not bigger than hazel nuts out of the gall bladder, as well as the cystic and common bile ducts. The only contra indication is, he says, a tendency to ulceration of the ducts.

He gives a drawing of one, $\frac{1}{2}$in. by $\frac{3}{8}$in., removed by this method after being impacted in the common bile duct for several months. From another patient he removed no less than seventy stones during a period of several months. From another patient two hundred.

Similar results have been obtained by others.

Mayo Robson on the other hand says he cannot recommend the method. While admitting that it may expel small ones, he says it is impossible to diagnose the absence of large ones, and to know the condition of the ducts which may be ruptured by manipulation.

The two classes of cases which are claimed by both, are apparently:—

(1.) Repeated attacks of biliary colic apparently due to biliary concretions, which do not yield to medical treatment, and are wearing out the patient's strength.

(2.) Obstructive jaundice probably due to a stone in the common bile duct.

For my own part it has seemed that in both these classes manipulation deserves a trial. It is true certain large stones occur which would not pass the duct, but are not these the ones which very often give rise to no symptons, and are only found *post-mortem*. The ones causing colic and jaundice are generally small multiple ones most of which will pass along the duct. If one too large to pass is there, one fails to expel it, but that is scarcely an argument against the method in all cases.

In the cases of impacted stone with jaundice, immediate relief has often followed soon after the first manipulation, and the patient has quickly been restored to health. Of course one may bring forward the danger of ulceration of the duct. There is a danger, but certain signs are often though not by any means always present, which warn one not to interfere, but to have recourse to surgical aid.

In cases of impacted stone, moreover, according to Mayo Robson, it is more dangerous to operate owing to the presence of jaundice. Whether this be so or not I leave to the surgeons to say, merely remarking that I never saw any bad effects from an operation during this condition.

Of the first class of cases, my patient is a good example. I expect to be able to cure him by manipulation, and I shall certainly try it in other cases.

INTESTINAL CONCRETION.

Dr. LIMONT: This concretion is one of two found *post mortem* in a case of suppurative perityphlitis with perforation of the vermiform appendix. It resembles closely an orange pip. The other one has been examined by Prof. Bedson, who reports it to consist chiefly of phosphate of lime; a little phosphate of magnesia being also present.

SECTIONS OF THE SPINAL CORD FROM TWO CASES, ILLUSTRATING TWO FORMS OF SCLEROSIS OF THE POSTERIOR COLUMNS OF THE CORD.

Dr. GEORGE MURRAY: These two series of sections of the spinal cord illustrate two forms of sclerosis of the posterior columns brought about by two different causes. One, injury to the spinal cord itself, the other injury to the posterior nerve-roots, both of which give rise to ascending degenerations of the posterior columns.

The first case was one of old spinal caries. The patient first developed caries of the spine at the age of four and was treated by means of a plaster of Paris support. Two years later she had apparently a psoas abscess, and soon afterwards she became paraplegic. How long the paralysis of the legs lasted I am unable to say, but in time she recovered the motor power in the legs and was able to walk about again. This paraplegia was due to pressure on the spinal cord caused by the spinal disease. The pressure must have in time diminished and so allowed the cord to regain its conducting power. At the age of 19 the girl died from bronchitis. I was only able to obtain a small portion of the spinal cord from the cervical region above the region where the cord had been compressed. Sections of this part of the cord shew a distinct sclerosis of the postero-internal columns or columns of Goll as they are often called. Under the microscope a number of healthy nerve fibres are seen in these columns, but running between them are seen the thickened bands of connective tissue. It is interesting to note that an amount of sclerosis which is visible to the naked eye persists in a cord which had regained its normal conducting power for motor and sensory impulses. A somewhat similar case has been recorded by Charcot. The patient had complete paraplegia from pressure on the spinal cord caused by spinal caries. Recovery took place and the conducting power of the cord was fully restored. It was subsequently found after the patient's death that at the level of the old lesion the cord was only about as thick as a goose's quill and contained, I believe, only one-third of the usual number of nerve-fibres. This narrowed piece of the cord had been able, however, to conduct nerve impulses as well as the intact cord above and below the injured part.

The second series of sections are from a case in which there was carcinomatous infiltration of the spinal dura mater from just above

the origin of the sixth cervical nerve roots down to the level of the fourth dorsal nerves. The anterior nerve roots were much involved, causing atrophy of certain muscles. I will not, however, detain you over that now, as the case, which was a very complicated one, will be published in a paper by Mr. Raymond Johnson and myself in the Medico-Chirurgical Society's "Transactions." The posterior nerve roots were also partly involved, as is shewn by the ascending degeneration in the posterior columns in these sections. The only sensory symptoms during life were pains in the arms and some hyperæsthesia; there was no anæsthesia. In the lowest cervical region the tract of degeneration is seen lying by the inner side of the posterior cornu for about the middle two-fourths of the distance between the posterior commissure and the posterior surface of the cord. The anterior part of the tract extends right across the postero-external column; the posterior part curves outwards with the posterior cornu. At the level of the sixth cervical root the tract extends from the posterior surface of the cord to the posterior commissure. It occupies the inner third of the postero-external column, and is expanded laterally at its anterior and posterior extremities. Just behind the posterior commissure it extends into the postero-median column, of which it occupies the anterior third. This tract corresponds to the course which is usually taken by the nerve fibres which enter the spinal cord in the "median bundle" of the posterior roots, in the upper dorsal and lower cervical regions of the cord. Similar ascending degeneration was described by Dr. Howard Tooth, in his Goulstonian Lectures, as having taken place in monkey No. 3, in which Mr. Horsley had divided the posterior roots of the sixth, seventh, and eighth cervical and first dorsal nerves; and also in monkey No. 11, in which the left posterior roots of the fifth, sixth, seventh, and eighth cervical, and first and second dorsal nerves, had been divided.

CASE OF CARCINOMA OF THE UTERUS: ORGAN REMOVED PER VAGINAM: RECOVERY OF PATIENT.

Dr. Oliver: The woman, aged 30, from whom the specimen, which Mr. Williamson will exhibit, was taken, was sent to my out-patient department two months ago, suffering from repeated outbursts of uterine hæmorrhage. She told me that a few months previously she had miscarried, and that up to that time her health had been quite good. On examination, I found her suffering from cancer of the cervix, and recommended her at once to come into the Infirmary, hoping to remove the greater part of the disease by means of Volkmann's spoon. When the patient was chloroformed, I found that the disease was limited to the cervix, and that the uterus was not involved, but perfectly free and mobile. The uterus

was enlarged, and as there was almost continual hæmorrhage and extensive disease of the cervix, I did not pass the uterine sound. The case seemed such a good one for removal of the whole uterus per vaginam, that I asked Mr. Williamson to see the patient with me, as to the advisability of this operation being performed. He agreed as to the case not only being a suitable one, but that it was the only thing that could be done to give the patient the best possible chance. Mr. Williamson will describe to you the steps of the operation. It is sufficient for me to state that the operation, now the second one which Mr. Williamson has performed for me, was successful, and that the patient is now quite well.

NOTE ON THE ACUTE CARDIAC INSUFFICIENCY OF ALCOHOLISM.

By DAVID DRUMMOND, M.A., M.D., Physician to the Royal Infirmary, Newcastle-on-Tyne, &c.

Mr. President and Gentlemen,—I desire to call the attention of the members of our Society to a phase of acute alcoholism with which, possibly, all may not be familiar. The group of symptoms I am about to describe form the clinical side of a special cardiac affection, which may be called acute alcoholic cardiac insufficiency. During the past ten years, a considerable number of these cases have come under my notice, and I have been tempted, from time to time, to place upon record an illustrative case, but have hesitated until I was able to supply *post-mortem* evidence against the presence of valvular lesion, in the ordinary acceptance of the term. This I am now in the position to do. I was under the impression, until quite recently, that the acute alcoholic heart had not been described in the literature of our profession; but I find that Dr. Robert Maguire has recorded two cases in the Transactions of the London Clinical Society, vol. xx., under the title "Acute dilatation of the heart produced by alcoholism."

In my cases about an equal number of males and females were affected, though the diagnosis was found to be more uncertain in the case of women, on account of their denial of an alcoholic history. For on this question men are usually frank in their confession, whilst women are more than reticent. In the great majority of the cases, ardent spirit—whiskey, gin and brandy—was the special stimulant indulged in; but in one case, at least, the patient confined himself to beer. In this instance the symptoms, though quite characteristic, were less severe than usual, and I am inclined to think that it is only in the case of spirit drinkers that the fully developed clinical picture is observed.

It is a notorious fact that spirit drinkers are usually more or less breathless on exertion, a symptom that becomes aggravated as the alcoholism increases, and is generally the first indication of the onset of the acute cardiac lesion under consideration. By degrees the breathlessness increases. Then the feet are observed to be œdematous, and the dropsy rapidly ascends the legs. Next the face becomes pale and swollen, and the lips assume a bluish tint. The abdomen is often distended, and a small quantity of fluid may be detected in the peritonial cavity, though acites is seldom copious. In severe cases the arms, and trunk generally, share in the dropsy. When the condition is pronounced the appearance of the patient is highly suggestive of an acute kidney lesion. The swollen pasty

face, the general dropsy, with the large boggy legs at once prompt an examination of the urine, and I have been repeatedly astonished to find that my snap-shot diagnosis of acute Bright has been shewn to be erroneous by the absence, in most cases, of even a trace of albumen. The urine is generally abundant, with a low specific gravity. The amount of dropsy varies very much in different cases, and may be confined to the feet and ankles, but is usually much more widely distributed, for the face seldom escapes. On examining the heart the impulse will be found to be more or less diffused, but there is an absence of the forcible heaving action, with systolic elevation of the rib, so suggestive of hypertrophy. The extreme left apex beat will generally be detected a little below and to the outside of the normal position, and the impulse can be traced into the epigastrium. The stethoscope detects, in the great majority of cases, a soft blowing systolic bruit at the apex which only replaces the first sound in very marked cases. This murmur is seldom loudly conducted towards the axilla and is usually of low intensity. It is common to have a systolic murmur also in the tricuspid area, though it is not always easy in these cases to distinguish between the murmurs of mitral and tricuspid regurgitation. The second sound in the pulmonary area is accentuated, and it is noteworthy that the accentuation is marked in the tricuspid area; in fact it is very distinct all over the region of the right ventricle. This is of some importance, for in very slight cases, when there may be no dropsy, a sharp rapping first sound at the apex, and a markedly accentuated second sound audible at the lower end of the sternum may be the sole ausculatory indication of the leison, for a bruit is not always present even when dropsy is fairly marked. Sometimes the first sound at the apex is reduplicated, when as a rule the left ventricular sound is somewhat muffled and the right sharp, and the latter generally precedes the former in point of time.

In marked examples there is a venous pulse in the neck. The liver may be enlarged, but the increase in the area of dulness is seldom much in excess of that observed in the majority of cases after a recent debauch.

Judicious treatment in the form of rest, suitable diet, and a little digitalis or strophanthus with iron or ether, seldom fails to bring about a speedy restoration to comparative health. The dropsy vanishes, the face loses the appearance suggestive of kidney mischief, and, as a rule, the murmurs vanish entirely, leaving a sharp sound at the apex, and an accentuated second sound heard along the left border of the sternum.

The following case illustrates the symptoms of the disorder fairly well, though it is not one of the most striking examples of the group :—

J. H., aged 40, a theatrical property maker, was admitted into the Royal Infirmary on the 30th of June of the present year complaining of shortness of breath, cough, and swelling of the legs, etc. For six months prior to his admission he had been earning an especially good wage which he spent in indulging his appetite for whiskey and brandy. A few days after a particularly severe bout of drinking he became breathless on exertion; he was, for example, unable to walk up the few steps leading to his house without considerable distress, and his feet began to swell. The swelling rapidly extended up to the thighs, and the breathlessness, to which was added a trying cough, soon incapacitated him, rendering walking even a few yards an impossibility. On admission his legs were markedly œdematous, so much so that his drawers had to be removed by aid of scissors, and the abdomen was distended, but the note at the flanks was comparatively resonant. The face was swollen, but lacked the pallor usual in cases of the kind.

The apex beat was in the fifth interspace about the nipple line. The impulse was diffused but feeble, and it was apparent on the epigastrium. Well marked systolic mitral and tricuspid murmurs were audible. That belonging to the mitral area was soft and flowing and was initiated by a somewhat short and sharp first sound. The tricuspid murmur was also soft and low pitched, but seemed closer to the ear than the mitral, and was followed by an accentuated second sound traceable into the pulmonary area. A peculiar wabbling movement was observed in the root of the neck (great veins), which was influenced by respiration. The pulse varied from 85 to 95, was regular, and was fairly full but very compressible. Medium sized rales were to be heard over the bases of both lungs. There was frequent cough with frothy expectoration. The bowels were constipated. The urine was pale, low specific gravity, and without a trace of albumen.

The following medicines were ordered:—R. pulv. jalup co. 3 gr. every morning. R. tinct. strophanthus m. iv.; eth. sulph. m. x.; sol. nitro-glycerine 1 p. c. m. i.; Aq. menth. pip. ʒi.; thrice daily.

Within a week after admission to Hospital the dropsy was practically gone, and the murmurs were observed to be less audible. By the 15th July they had disappeared entirely; the tricuspid was the first to go. He was discharged, looking the picture of health, on the 20th July, without dropsy, without cardiac bruits, and sufficiently free from shortness of breath to be able to ascend the Infirmary stairs without distress.

In the case of the patient to whom I shall now briefly refer the illness proved fatal, on account of diffuse hepatic inflammation in addition to the cardiac lesion.

A shipwright, aged 34, was admitted into Hospital, complaining of shortness of breath, swelling of legs and abdomen, and slight

jaundice. His illness, which was clearly traceable to the abuse of spirits, began some three or four months before his admission. At first he suffered from cough, shortness of breath, and night sweats. Then the legs began to swell, and soon the abdomen became distended, and later the jaundice made its appearance. On examination the legs were very œdematous, and the body generally was swollen. There was a large quantity of ascites in the peritoneal cavity. The pulse was fast, small, and compressible. The heart impulse was diffused, but the apex beat was only slightly displaced to the left. The first sound was sharp, but without murmur; the second sound, in the pulmonary and tricuspid areas, was loud and high pitched. The liver seemed to be enlarged, but, owing to the quantity of ascitic fluid, its limits were masked. The abdomen was tapped, but the patient speedily ran down. At the *post-mortem* the liver was found to be much enlarged—it weighed over six pounds—and was, on microscopical examination, the seat of diffuse small round cell infiltration. The heart weighed nine ounces. The muscle substance was soft and pale. The ventricles were apparently dilated, though not markedly so. I say apparently, because of the difficulty one experiences in determining this point when the muscle is relaxed. The valves were healthy, and the mitral and tricuspid orifices admitted three and four fingers respectively.

I have referred to the striking resemblance between a patient suffering from acute alcoholic cardiac insufficiency, and one the subject of Bright's disease, either in the acute stage, or during the course of a chronic lesion with an acute catarrhal exacerbation. The appearance of the patient in the two conditions is indeed very similar; but this is not to be wondered at, for it will be admitted that the dropsy of kidney disease is largely due to cardiac insufficiency, a condition that in most cases is, from time to time, an inseparable and essential feature of the disease. I have for long regarded the dropsy of the chronic lithæmic kidney as an expression of cardiac debility, related of course to the condition of the blood, which is vitiated by the lesion, and I think a comparison may very properly be drawn between cardiac insufficiency, of acute alcoholism, and that of Bright's disease. In both cases the blood is poisoned, and the nutrition of the tissues impaired, and judging from results it would be unfair to assume that the heart muscle bears the brunt of the attack. Indeed, I would suggest that in both the alcoholic and kidney lesions the posion acts directly upon the heart, for, though peripheral resistance and high tension would favour the occurrence of dilatation of the ventricle, it is noteworthy that the œdema makes its appearance in Bright's disease at a time when the tension is low, and that the tension rises during the ebb of the dropsy. Nor is the loss of tension far

to seek, for cardiac failure will readily account for it. In acute alcoholic dropsy, on the other hand, the tension is decidedly low, and here we have no kidney lesion to complicate the question. In some cases the heart dilates, and in consequence the valves become incompetent, as evidenced by the various bruits, but this would appear to be a secondary and unessential feature of the condition.

NORTHUMBERLAND AND DURHAM
MEDICAL SOCIETY.

SESSION 1891-92.

DECEMBER MEETING.

The Third Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on the evening of Thursday, December 10th—Dr. Gowans (President) in the chair.

The President (Dr. Gowans) shewed two cases in which he had got very good results from Wheelhouse's operation for stricture.

Drs. Hume, Anderson, Benington, and Murphy discussed the cases.

GASTROSTOMY IN A CHILD.

Dr. Hume shewed a little girl, aged 5½ years, on whom gastrostomy was performed three years ago. The operation was rendered necessary by a stricture at the lower end of the œsophagus due to swallowing caustic alkali. The child was now growing and her health fairly good; but during two years after the operation she remained puny and had frequent attacks of broncho pneumonia. Several attempts had been made to dilate the stricture, but these had been unsuccessful and so upset the child's health that they were given up. As in most cases of gastrostomy there are occasional periods of good swallowing, followed always by periods of complete inability to swallow, during which the patient is entirely dependent on the artificial opening. When the health is good there is very little regurgitation of food; but now and again gastric irritability seems to come on and to lead to the expulsion of some of the food through the opening and to excoriation of the surrounding skin.

CASE OF COLOTOMY.

Dr. Hume shewed a man on whom inguinal colotomy had been performed three and a half years ago for malignant disease of the rectum. The disease in the rectum is now very extensive; but beyond occasional slight bleeding appears to give very little trouble.

The bowels act regularly through the artificial opening, and occasionally some stool passes *per anum*. There has been no prolapse of the gut, but rather a tendency for the opening to contract. This could easily be overcome, if necessary, by dilatation with the finger. The patient remains in good general health and vigour and works as a day-labourer. This case was shewn as illustrating the advantage of the operation in relieving suffering, in delaying the progress of the malignant disease, and prolonging life.

SARCOMA OF HAND.

Dr. H. S. Baumgartner: This is a case which I was asked to see by Dr. Yoakley, of Heaton. The patient, Mrs. H., a fortnight after her confinement, noticed a slight swelling and pain in her left thumb; the swelling increased until I saw her, which was five weeks from the earliest symptom, at which time the swelling in the thumb was about the size of an ordinary orange. Three days subsequently, on October 18th, I removed the hand.

The accompanying sections, which have been kindly cut by Dr. George Murray, shew the well-marked structure of myaloid sarcoma.

Dr. H. S. Baumgartner: These tubes and ovaries I removed a month ago from a patient that I was called in to see by Dr. Slater. The patient, Mrs. R., had been married two years. Her first illness dated from a few weeks after marriage, when she suffered from an attack of gonorrhœa. From that time up to the present she has been a confirmed invalid and has been constantly under treatment, having spent six months in the Newcastle-upon-Tyne Infirmary.

The operation was a difficult one. Upon opening the abdomen, I found the left tube and ovary bound down and adherent to the surrounding viscera. The right tube and ovary were fairly free.

There was a considerable amount of oozing from the separated adhesions; but after the fourth day I was able to remove the glass drainage tube, and the patient made a good recovery.

Dr. H. S. Baumgartner: Miss W., age 37, for the last eighteen months has suffered from incontinence of urine and difficulty in defæcation. Nine months ago she noticed a swelling in her abdomen. On November 16th, I was called in to see her by Dr. Yoakley. On Sunday, November 22nd, I removed a solid ovarian growth weighing $5\frac{1}{2}$lbs. It was necessary to extend the abdominal incision $2\frac{1}{2}$ inches above the umbillicus, in order to remove the growth, otherwise the operation presented no difficulties, and the patient made a perfectly good recovery.

The accompanying sections, kindly cut by Dr. George Murray, shew the structure of a fibroma of the ovary.

FŒTAL MONSTROSITIES.

Dr. BENINGTON said: I shew to-night two monstrosities in contrast with one another. They belong to the class of sireniform monsters. Geoffry St. Hillaire divides these into three groups acccording to the extent of deformity.

The first group, or symelian, is characterised by complete union of the lower limbs—but all the bones of the leg are present, and there are two feet more or less perfect—below the knee the bones are turned round, so that the anterior surfaces are posterior, and vice-versa; the soles of the feet are therefore anterior.

The first specimen he shewed was of this class. He had dissected it, and handed round drawings illustrating the anatomical points of interest—one interesting feature being the presence of a caudal appendage, consisting principally of longitudinal muscular fibres. The case had been published in full in the "Journal of Anatomy and Physiology," 1891. The specimen had now been kindly prepared for him by Dr. Howden, and he presented it to the Museum of the University of Durham College of Medicine.

In contrast with this he shewed another belonging to the same group, which he had not yet dissected. It is much more imperfect; the lower extremity is smaller, and ends in one foot with an abnormal number of toes. This probably belongs to St. Hillaire's second class, in which the limb is composed of two femora, with sometimes one tibia and fibula, sometimes two tibia and one fibula —one foot which is usually well formed. To this class the name uromelic is given.

In the third class, or sirens, the foot is either absent entirely or represented only by a toe or the rudiments of a toe.

Of the three classes, the symelic variety is the rarest, and he believed the specimen he shewed was almost unique.

For both specimens he was indebted to Dr. W. S. A. Griffith, Physician in charge of Maternity Department of St. Bartholomew's Hospital.

Dr. OLIVER and Mr. WILLIAMSON shewed a man recovered from suppurating hydatid of the liver treated by incision and drainage.

Prof. PHILIPSON congratulated his colleagues on the successful result of the case. He stated that the diagnosis of a suppurating hydatid cyst was most difficult, because of the absence of hydatid thrill, present when the fluid of a cyst is limpid. He agreed with Professor Oliver and Mr. Williamson as to the treatment by incision and evacuation, when it has been rendered certain that the cyst was adherent to the abdominal parietes.

Prof. PHILIPSON, on behalf of the Council of the University of Durham College of Medicine, thanked Dr. Benington for the valuable presentation which he proposed to make to the Museum of the College.

CALCULUS REMOVED BY THE SUPRAPUBIC OPERATION.

Dr. VANN: Mr. President and Gentlemen,—This mulberry calculus, weighing 7 drachms, was removed by the suprapubic operation from a male patient, aged 23 years.

The bladder was moderately distended with boracic solution, and a Petersen's bag placed and inflated in the rectum.

The usual incision was made, the peritonæum was not seen during the operation, and the bladder reached without difficulty. The stone was removed by means of the two index fingers. A large drainage tube was inserted, and two or three skin sutures inserted in the upper part of the wound.

The patient made an uninterruptedly good recovery, and left the Hospital quite well in three weeks.

For valuable assistance at the operation, and careful after-treatment of the case, I am indebted to Dr. Plummer, House Surgeon at the Hospital.

NORTHUMBERLAND AND DURHAM
MEDICAL SOCIETY.

SESSION 1891-92.

JANUARY MEETING.

The Fourth Monthly Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on the evening of Thursday, January 14th, 1892—Dr. Gowans (President) in the chair.

Dr. Murphy: This patient, after a strain, was attacked by pain and vomiting. Neither flatus nor fæces passed for six days. The patient's condition was bad, but the abdomen was opened, and an omental band at once found constricting the small intestine and divided. The peritoneal coat of the intestine was divided by ulceration from constriction. The most satisfactory explanation we could offer of the case was that it was one of traumatic hernia through the omentum. The patient made a straightforward recovery, and, considering his serious condition and the ease of the operation, the case might be regarded as one of the prizes of abdominal surgery.

Dr. A. E. Morison exhibited a patient on whom gastro-enterostomy has been performed. This man, æt. 40, a pick-sharper, consulted me on October 31st, 1891, complaining of constant vomiting after food and loss of flesh of two years' duration.

The history he gave was as follows: Up to two years ago he was a strong, healthy man, weighing 11st. 8lb. He then began to suffer from dyspeptic symptoms—his food not digesting, flatulence, and occasional attacks of vomiting. This continued for six months, during which he got gradually worse, losing flesh, vomiting after every meal, and often during the middle of the night. His doctor then told him his stomach was enlarged. On the date mentioned he consulted me.

Present state: Patient is extremely emaciated. His weight is now 7st. 12lb. He complains of vomiting about an hour after every meal, the stomach contents being sour and fermented. The tongue is coated, and the bowels are constipated.

On examining his epigastric region, there is well marked succussion, the stomach note on percussion extends below the umbilicus about one inch and to the right of it for about the same distance. Nothing abnormal can be felt in the region of the pylorus. The patient was exceedingly anxious that something should be done without delay. I accordingly admitted him into my private hospital on November 10th. His stomach was washed out every morning for four days. During this time his temperature was subnormal morning and evening.

Operation, November 14th: The stomach was washed out an hour before the operation.

An incision, four inches long, was made in the middle line above the umbilicus. On opening the peritoneal cavity, the pyloric end of the stomach was seized, and brought to the surface. On it was found a thickening, probably malignant, about the size of a duck's egg. The omentum and transverse colon were then pushed to the right, and the jejunum caught as high up as possible, and pulled to the surface. Sponges were then packed well round the exposed portion of stomach and jejunum, and the former was opened with scissors to the extent of about one-and-a-half inches. The margin of the wound was stitched round with a continuous suture of fine silk, and a Senn's plate, carrying six threads, was introduced. All the threads were passed through the stomach wall, clamped with forceps, and turned aside. The jejunum was next opened, and the plate introduced. The sutures were then tied in order, the lower lateral first, next the lower end suture, the upper end suture, and finally the upper lateral threads.

Lembert sutures were next introduced all round the plates, and over all an omental graft was placed.

The parts having been cleansed were put back into the abdomen, and the parietal wound closed in the usual way. The operation lasted one-and-a-half hours.

Progress and after-treatment: Patient very restless, and complained of a good deal of pain for the next few hours. At 12·15 a.m. $\frac{1}{4}$ grain morphia suppository. Vomited a little, and afterwards rested well till three a.m. Vomited at intervals during night. Milk and soda water (℥i. every hour) was commenced two hours after operation. The vomited matter was semi-digested blood and milk.

15th.—Vomited frequently until noon. Abdomen a good deal distended. Ordered $\frac{1}{2}$oz. of whisky every two hours.

16th.—Fairly good night; slept three-and-a-half hours. Vomited each time on taking milk. At ten p.m. the vomiting ceased. Temp. 97·8; pulse 90.

17th.—Ordered solid food—arrowroot, milk pudding, &c.—as patient felt hungry.

18th.—Temp. 98·4. Patient remarkably well.

19th.—Patient troubled with diarrhœa, which persisted, in spite of the most careful dietary, until he left the hospital. It comes on about an hour after food.

25th.—Patient up for first time. Weight, 7st. 7lb. Eating well. Diarrhœa not so persistent.

Dec. 10th.—Patient went home to-day. The stomach has diminished in size. Weight, 8st. 2lb.

Dec. 21st.—Patient weighs 8st. 12lb. The diarrhœa is now only caused by an indiscretion in diet.

Present state, January 14th: Patient now weighs 9st. 8lb. He has no sickness, no diarrhœa, and walks two miles without the least fatigue. The stomach has almost assumed its natural size.

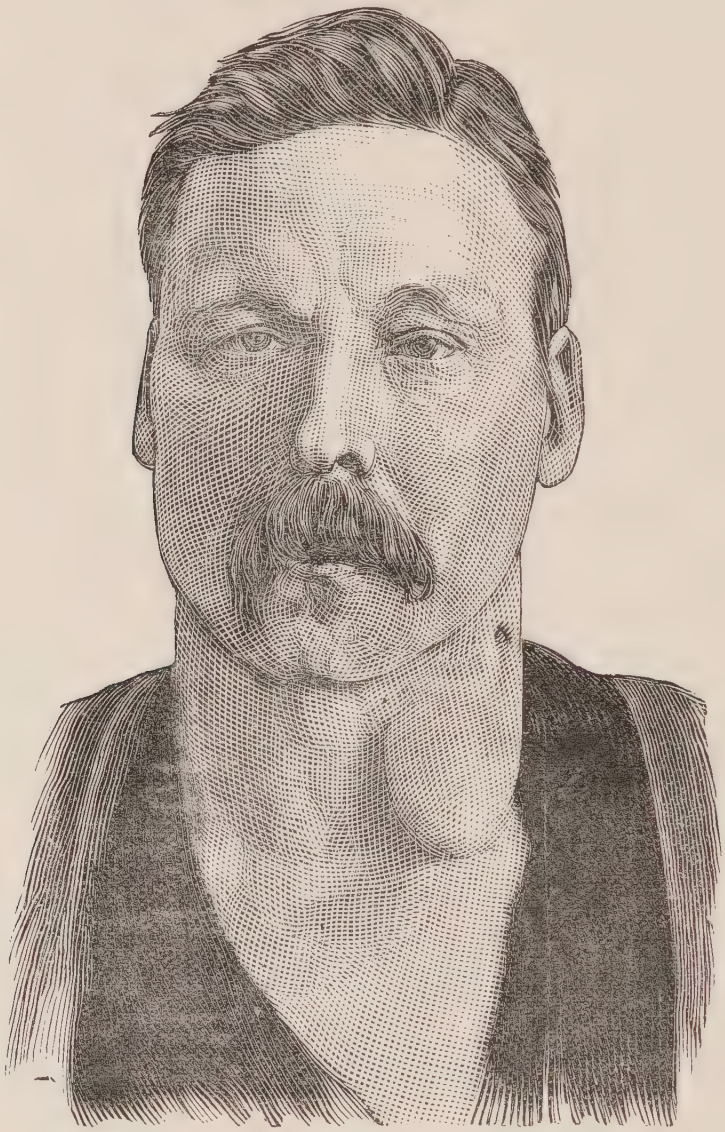
Mr. Rutherford Morison: This patient, a man 47 years of age, had two undescended testicles and a troublesome hernia on the left side, which had been three times strangulated. On November 21st an operation for radical cure was performed, the thin sac and cord being tied in one ligature, and the testicle and sac excised. Two hours after the patient collapsed, and the wound and the inguinal canal were at once opened up. The spermatic artery had retracted and a large extra peritoneal hæmatocele formed and burst into the peritonæum, which was full of blood. After catching and tying the spermatic artery, I opened the abdomen in the middle line and washed out an enormous collection of blood, as sufficiently free access was not obtainable by the existing opening. The man is now well and his hernia radically cured, but he narrowly escaped being the victim of a surgical calamity.

Dr. Murphy: This specimen of malignant tumour of the transverse colon was removed, *post-mortem*, from a woman on whom laparotomy was performed for intestinal obstruction. Death occurred in twenty-four hours after operation.

Dr. Murphy: This patient has been operated on for stricture of the urethra by Wheelhouse's method. He had, on admission to the Sunderland Infirmary, retention of urine, which was relieved by supra-pubic aspiration of the bladder. The following day I found him with retention and fistulæ in the perinæum. No catheter could be passed, and Wheelhouse's operation was performed. The instruments exhibited are, I think, an improvement on those usually employed. The operation is a satisfactory one, and the patient is quite restored.

Mr. Page: One month ago, sir, this man, who is a pitman between 40 and 50 years of age, was, in a family squabble, stabbed with a narrow-bladed knife in the left side of the neck, on a level with about the centre of the thyroid cartilage. There was some bleeding, which a surgeon who was sent for controlled by pressure with his finger till the arrival of Dr. Ellis, of Bishop Auckland. The

wound was then enlarged, and a vein tied, but whether with a single or a double ligature I do not know. The wound healed readily, but very soon after its infliction the swelling you see appeared. This swelling has not varied in size, or indeed in any particular, since its appearance. It is of considerable size, and reaches from the seat of puncture to the sterno-clavicular articulation. It is behind the sterno-mastoid. On touching it,



the peculiar thrill characteristic of a communication between an artery and vein is felt, and I think there can be no doubt that the vessels wounded are the common carotid and the internal jugular. The swelling, which I am of opinion is the dilated vein, is not seen to pulsate. It empties itself when the circulation through the common carotid is stopped by pressure, and although the peculiar thrill is heard all over, it is felt much more distinctly at one spot, and at the lower part is hardly, if at all, recognised. The patient

complains of the constant buzzing noise which he hears. He has difficulty in speaking—sometimes considerable difficulty—and he is unable to read for any length of time in consequence of, what he describes, as weakness of sight. He says, too, his head is confused. He fears the swelling will burst. I think, sir, this is a most interesting and important case. What is the nature of the communication between the artery and vein? Is it a case of varix or of varicose aneurism? My own opinion is that it is a varix—that there is no aneurism—and for the following reasons:—

1. It has not increased in size.

2. It does not visibly pulsate nor expand with the heart's systole.

3. It empties itself when the circulation through the carotid is stopped.

I consider, however, the diagnosis very difficult. If there be no aneurism, I think surgical interference, if possible, should be avoided. It is well known that a varix may exist for many years, giving rise to but little inconvenience. It may be within your recollection, sir, I am sure my friend, Mr. Morgan, remembers a case I shewed here about seven years ago. A boy, 15 years of age, had thrown at him an open pen knife, which, entering the popliteal space, wounded both artery and vein. Profuse hæmorrhage followed, his wound healed readily, but a varix was the result. Some twelve years after the accident an aneurism formed, and gave rise to so much pain that the case had to be treated surgically, and I tied the femoral artery at the apex of Scarpa's triangle. Gangrene extending up the leg to the biforcation of the popliteal artery ensued, for which a week after ligature, I amputated the thigh. This is the dissected specimen. The vein is very much dilated, both above and below the seat of injury. The aneurism contains clot, and the artery below the puncture is very much attenuated, so much so, that it is not surprising the collatoral circulation was not established. I do not think his chance of success would have been improved by tying the artery above and below the aneurism, and certainly there would have been very great difficulty in doing so. I shall be glad, sir, if you and those members of the Society who are interested in surgical problems, will examine this case, and be good enough to give me your opinion and advice.

Mr. Morgan thought the case a most interesting one, and agreed with Mr. Page in looking upon it as an aneurismal varix, from the character of the humming thrill, from the swelling being easily emptied, and from the absence of distensile impulse.

He agreed too in the wisdom of waiting before attempting any operative proceeding, because such cases frequently remained stationary for years, producing but little inconvenience; and because pressure upon the carotid on the left side produced such an effect upon this patient.

I.—STRICTURE OF OSEOPHAGUS.

Dr. A. E. Morison: This specimen was removed from a man, æt. 64, who consulted me on Sept. 23rd, 1891, complaining of pains and difficulty in swallowing of ten weeks' duration.

Up to six months ago patient was a strong healthy man, weighing 12½ stones. About this time he began to fail in health and to lose flesh; ten weeks ago he had a severe attack of vomiting, and since that time has been unable to take any solid food and very little fluid, owing to the severe pain it gave rise to at the pit of the stomach. On the 23rd September he consulted me. I found him extremely emaciated. On examination nothing could be felt in the stomach. On passing a large size olivary bougie, there was some difficulty in getting it past the cricoid cartilage, both on introduction and withdrawal. On passing it downwards, it could not be passed into the stomach. A smaller size was tried, with the same result. He was admitted into my private hospital on October 21st, and, on the 22nd, gastrostomy was performed. The stomach was opened on the fourth day, the patient meanwhile being nourished with peptonised enemata. He continued to improve in condition. At the end of a month he had gained 3½lbs., or at the rate latterly of ½lb. per diem. This improvement continued until November 28th, when he was attacked with influenza, and died.

The specimen shews an annular stricture, malignant in character, three inches from the cardiac extremity of the stomach, causing almost complete occlusion of the oseophagus. One inch above this is an ulcerated surface, probably also malignant.

The stomach wall is firmly adherent to the abdominal wall at the seat of operation, and the skin surface shews entire absence of irritation round the stomach opening.

II.—INTUSSUSCEPTION.

Dr. A. E. Morison: This intussusception was obtained from a child, æt. 11 months, whom I first saw on July 9th, 1891. Her mother stated that she had been vomiting constantly for ten days.

History: On June 27th she was being carried by her sister and she let her fall. On the morning of the 28th she began with violent sickness and screaming, and in a short time passed a large quantity of blood. A doctor was called in who prescribed for her, but the sickness still continued and there was a constant discharge from the rectum of a dark treacly substance. On July 8th I saw the child; she was very much wasted, face pinched, abdomen distended and tympanic. The vomiting was constant and a dark thick fluid was constantly passing from the bowels. On palpation a sausage-shaped swelling could be felt; in the area of the descending colon and per rectum, a mass could be felt extending down to within

an inch of the anus. The child was so ill that any operative procedure was out of the question and it died the following morning.

The specimen shews that there has been a primary intussusception of the ileum through the ileo-cœcal valve. This continuing, has caused the ascending colon to become invaginated into the transverse and descending portions of the colon. At the splenic flexure the intussuscipiens has been perforated, and the mucous membrane of the ascending colon is seen through the opening. The small intestine can be seen within one inch of the anal orifice. There was acute peritonitis.

III.—GANGRENOUS VERMIFORM APPENDIX.

Dr. A. E. Morison: Obtained from a boy, æt. 5, whom I saw first on May 3rd, 1891, complaining of severe abdominal pain and frequency of micturition lasting for three days.

History: On the morning of May 1st he went to school apparently perfectly well. On coming out of school he was suddenly seized with intense pain in the right iliac fossa. He walked home and at once went to bed. When first seen by me on May 3rd he was moribund, lying in bed almost unconscious, with knees drawn up, abdomen distended and tympanic, and almost pulseless. His mother said, on inquiry, that his bowels had always been very constipated, and during his illness the pain was localised to the right side, and lower part of the abdomen. At the *post-mortem* there was found intense peritonitis round the cœcum, and the vermiform appendix was full of concretions, perforated, and gangrenous.

Mr. Morgan shewed the parts removed in a case in which excision of the rectum had been done by Mr. Cripp's modification of Lisfranc's operation.

He pointed out the ease with which the diseased portion could be exposed by adopting Denou Villier's posterior incision.

In this case the patient was a female of 30. She had observed blood in the stools for nearly two years, and latterly the motions had been flattened, and there was some slight pain.

The finger found a mass of ragged disease on the posterior wall of rectum, and could just reach above it.

There was no family history.

The operation: The patient being anæsthetized and fixed in position with clover crutch. The finger of left hand was passed into rectum, so that tip of coccyx was reached. With a curved bistoury all the parts were severed to this point in middle line. Then a deep incision within the external sphincter, and circling bowel, enabled the finger to be passed behind the rectum, separating it from its attachments up to and beyond the extent of disease. The anterior portion, being free, was left, and the scissors quickly

divided on each side the unsound from the sound. This diseased portion was then drawn down as far as possible, and severed slowly, by means of ecraseur, well above the disease. The bleeding was not very active, and, the operation being quickly done, not much blood was lost. The wound was just washed out with perchloride lotion, and a pad of absorbent wool placed against the perinæum.

The after progress of the case was quite satisfactory. No pain. No bleeding. No fever. At first complete incontinence, which, of course, was provided for.

The wound was irrigated daily.

To-day, three months after operation, the patient has good control, and you would find difficulty in saying, from the appearance of the parts, that $3\frac{1}{4}$ inches of rectum had been removed.

Mr. Morgan thought that this operation was not as frequently performed as it ought to be, and drew attention to the very good result which followed it.

CONGENITAL PIGMENTATION OF THE RETINA.

Dr. Archibald Percival shewed a coloured sketch illustrating a peculiar congenital pigmentation of the retina. The patient was a hypermetrope, aged 38, and had the usual symptoms attending that condition, which were entirely relieved by the correction of the refractive error (2D). On ophthalmoscopic examination, a peculiar pigmentation was observed in the fundus of the left eye. Its limits were well defined, occupying the inferior sector of the fundus, extending from a point about 1·5mm. from the lower margin of the disc to the periphery; this area was traversed by the retinal vessels, which were in no place obscured by the pigment. The arrangement of the pigment was peculiar, as it consisted for the most part of groups of several (4 to 8) angular black dots equi-distant from each other. No alteration of the retina or choroid could be discovered in the neighbourhood of these dots or elsewhere. There was no pallor of the disc, and the retinal vessels were well filled. Visual acuity, with correction, $\frac{6}{6}$ each eye. No scotoma, no contraction of visual field (chart shewn). No night blindness, nor history of any visual defect in his family. The view of retinitis pigmentosa cannot, therefore, be entertained; indeed, the geometrical character of the pigmentation, apart from its distribution, contrasted strongly with the arborescent pigmentation of the periphery in that disease. Dr. Percival regarded the condition, therefore, as a congenital anomaly in the distribution and development of the pigment, and he pointed out that this might, perhaps, have some relation to the closing in of the choroidal fissure in the situation of which it occurred. He referred to similar cases which had been published by Mr. Sydney Stephenson and Mr. Frost, who regarded the condition as comparable to the irregular pigmentation that sometimes occurs in one sector of the iris.

A PIECE OF STEEL AND A NEW GROWTH OF BONE FOUND IN AN EXCISED EYEBALL.

Mr. WILLIAMSON said: Mr. President, the patient from whom this specimen was removed was an athletic man, 40 years of age. Some twenty years ago, a piece of steel struck him in the eye and destroyed the sight, but it caused no irritation in the healthy eye until a short time before I saw him. I advised excision of the damaged eye, and on opening the eye after the operation, I found in it this piece of steel—about the size of a barley-corn. At the back of the eye was this piece of bone, cup-shaped, and with a central perforation for the passage of the optic nerve.

In order to make sure that this new formation was bone, I ground down a small piece and examined it under the microscope. It proved to be true bone, with bone corpuscles, canaliculi, and haversian canals.

In reply to a question by the President regarding the formation of the bone, Mr. Williamson added that he had noticed that in the eyes of newts there was a layer of cartilage outside the pigment layer, and it is known that in the eyes of some birds there is a piece of bone. It may be that in a state of disease the outer part of the choroid coat tends to return to the condition which is found in some of the lower animals.

SPINDLE-CELL SARCOMA OF IRIS.

Mr. WILLIAMSON: Mr. President, a girl about 14 years of age came to me at the Eye Department of the Infirmary with a curious yellow growth at the lower part of the iris. It was circular, and in size was about the width of the iris. Examining it closely with a powerful lens, little bunches of vessels were made out on its anterior surface. It could not be traced behind the lens, and the eye, with the exception of the growth, was healthy. The disease was first noticed as a little yellow dot, which gradually increased in size, and when I saw her, some 15 months after it was first noticed, the appearance was very striking, and is well shewn in this drawing. I attempted to remove the tumour by an incision through the lower part of the cornea, but it would not move when seized with the forceps, and about a week later I excised the eye.

I prepared the specimen most carefully for the microscope; it was stained in bulk with borax-carmine and embedded by the instertitial method in paraffin. The beautiful drawings of the microscopic sections have been made for me by Dr. Baigent, and their accuracy can be tested by comparing them with the sections under the microscope. The first one shews the iris replaced by a club-shaped mass; the second, seen under a high power, is a drawing of a typical spindle-cell sarcoma; the third is the edge of the tumour, where it runs into a narrow neck and is cut off from

the healthy part by a sort of capsule, bounded by a small artery; the fourth is another part of the neck of the tumour, where the spindle-cells run towards the ciliary body along a blood-vessel. It was this part of the growth which prevented the removal through the corneal incision. Two drawings shew the condition of the recent corneal wound. In the first, the epithelium of the cornea is seen to pass like a bridge across the incision, the margins of which still remain separated in the substance of the cornea. In the deeper part of the incision, little nests of epithelial cells are seen. These, no doubt, have originated from cells carried in on the blade of the knife at the first operation. The remaining sections are taken from the upper part of the eye, and are drawn to shew that they are free from disease.

Dr. Percival, after alluding to the extreme rarity of the growth, and the interest and value of Mr. Williamson's preparation, referred to Hirschberg and Little's case. Little's case shewed that if the sarcoma was limited to the iris, a satisfactory result might be obtained by excision of the affected portion alone (no recurrence for ten years). The important point to decide, therefore, when a new growth of the iris presented itself, is to determine whether it is a primary growth, limited to that situation, or whether it is due to an extension from the ciliary body. In the latter, the more usual condition, the eye must be enucleated; in the former, iridectomy alone may suffice. Reference to Dr. Mules' paper on tumours of the ciliary body was made as to the points of diagnosis of these growths in their early stage.

Mr. Rutherford Morison: This patient, R. W., æt. 57, a color maker, was admitted to the Royal Infirmary, Newcastle-on-Tyne, under my care on July 29th, 1891.

His chief complaint was of constipation, with recurring attacks of pain in his abdomen.

The history of his present illness is that fourteen months ago, while leaning over a cask, he was seized with a pain in the lower part and right side of his belly, which rendered him unable to work for the rest of that day, but gradually passed off.

A month later, without evident exciting cause, pain returned in the same position, and spread from it upwards to his navel down to the testicles, and he had also a feeling of cramp in the heel. This attack lasted for a week, during the first three days of which he was unable to pass either flatus or fæces, but the obstruction was eventually overcome by strong purgatives. He never vomited. Since then, he has had similar attacks from time to time, never going for longer than a month without one. Since the first seizure, he has never had the bowels moved without purgative medicine, and has lost more than a stone in weight. He has been unable to work for six months on account of this illness.

Condition on admission: The patient is a sallow, poorly-nourished, depressed-looking man. His pulse is 84, strong and regular. Except for the abdominal condition, he appears to be healthy, there being no evidence of disease in any of his other organs.

The abdomen, on inspection, appears normal. On deep palpation one inch internal to, and three fingers breadth above, the right anterior superior spine of the ilium, an indistinct rounded solid-feeling mass is discovered lying against the back wall of the abdomen. It moves a little upwards and downwards in respiration, and, though not tender on pressure, causes a "sensation" when manipulated.

None of my colleagues who saw the case, or myself, were able to form any definite conclusion as to the nature of the abdominal tumour, but all agreed with me that the case was one requiring an exploratory operation.

On Aug. 7th, 1891, assisted by Dr. Hume, I opened the abdomen by a four inch incision in the right linea semilunavis, and drew forward the tumour for inspection. The ileo-cæcal region was found to be involved, the tumour being about three inches long, rounded, and like a thick sausage, and firm in consistence. From the character of the tumour, and the infolded appearance of the ileum at its junction with the colon, the case was regarded as one of chronic intussusception at the ileo-cæcal valve. An attempt was made to reduce the intussusception, but the density of the adhesions, and the free bleeding which followed tearing them, soon warned us that no success was likely to reward perseverance in this direction. A loop of emptied ileum and ascending colon were now drawn out of the wound, isolated by sponges, and each opened on their convexity between two constricting india-rubber bands passed through their respective mesenteries. By means of Senn's decalcified bone plates, and an outside row of Lembert's sutures, I made an anastamosis between the ileum and ascending colon, and, before replacing the intestine, drew the omentum out of the abdomen, rolled the bowel in it, and stitched it round the whole.

After progress: From the 7th August (the day of operation) till the 14th August his progress was uneventful. He had no sickness, pain, or temperature.

On the evening of August 14th his temperature suddenly rose to 102 deg., and, though he made no complaint, he did not look well.

August 15th.—Sutures removed. Some fœtid pus escaped when this was done. From this date he had no further trouble, and, though still weak, at his own request was discharged on August 21st, 1891.

For the first month after operation he had a tendency to diarrhœa, but afterwards his bowels acted regularly and naturally, his appetite returned, and he felt no abdominal trouble whatever.

On October 17th, 1891, he died of bronchitis, and I am indebted to Drs. Arnison and Angus for obtaining this specimen for me.

The *post-mortem* shewed a firm healthy cicatrix in the abdominal wall, some old omental adhesions in its neighbourhood, and nothing else abnormal except this preparation shewn, which has been made from the specimens given to me.

Omentum was firmly adherent to, and wrapped all round the bowel, and on removing this the condition seen was displayed. A portion of ileum, about five inches from its termination, is seen attached to the inner side of the ascending colon, about four inches from the caput cæcum. One small silk suture, firmly buried in organized lymph, is all that remains of the numerous sutures used. The whole connection is secure and strong. On opening the colon the fæcal fistula connecting it with the ileum admitted the end of my thumb. Its edges are smooth and round, and fæces must have passed through it with ease.

The ileum, at its junction with the colon, is completely blocked, and here and in the cæcum a firm ulcerated surface exists. Dr. Drummond has kindly made a section of this for me, and the section shews it to be a cylindrical-celled carcinoma.

The pathology of the case has been malignant growth of the cæcal valve, causing ileo-colic intussusception.

The lessons to be derived from it are :—

1. The importance of exploratory operations in doubtful cases of abdominal disease.

2. The value of this method of intestinal anastomosis in suitable cases.

NORTHUMBERLAND AND DURHAM
MEDICAL SOCIETY.

SESSION 1891-92.

FEBRUARY MEETING.

The Fifth Monthly Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on the evening of Thursday, February 11th, 1892—Dr. Gowans (President) in the chair.

PARTIAL EXCISION OF ELBOW JOINT FOR INJURY.

Dr. A. M. Vann: Mr. President and Gentlemen,—This man, E. T., aged 62 years, was admitted into hospital under my care on October 19th last, with a view to having something done for his left elbow, which had sustained an injury in the previous July.

On admission, the elbow joint was bent at about a right angle, somewhat swollen, and absolutely immovable.

Under chloroform, the joint was explored, and it was found that both olecranon and coronoid processes were fractured, along with backward dislocation of the radius and ulna.

The bone fragments were removed, and the heads of radius and ulna excised; the humerus was left untouched.

The wound was dressed antipsetically, and internal-jointed splint applied.

The patient made a rapid recovery, with no rise of temperature. Primary union took place along the greater part of the wound, and passive movements were commenced early.

He has now a very useful limb, with almost perfect range of motion at the joint, together with pronation and supination.

THREE PATIENTS AFTER OPERATION FOR TUBERCULAR DISEASE OF THE KNEE JOINT.

Dr. Black: These three cases, Mr. President, have been operated upon within the last three weeks, two of them fourteen days ago, and one of them seven days ago. They illustrate very well, the rapidly successful results obtained in modern operations on the knee joint.

The first patient was admitted into the Children's Hospital, under my care, four weeks ago, having been under my treatment by fixation and counter irritation for four months without improvement. Fourteen days ago, I performed erasion of the joint by a semi-lunar incision through the patellar ligament, the crucial and lateral ligaments were not divided. I then removed the tourniquet, stopped hæmorrhage as far as possible, reapplied the tourniquet, and carefully and thoroughly irrigated the joint with 1–2000 corrosive; the joint was then completely closed and firmly dressed with dry absorbent cotton-wool, placed on Howse's splint, and the tourniquet removed last of all. No attempt was made to drain the joint; the case has healed under one dressing perfectly.

The second patient is an example of a precisely similar condition was operated on seven days ago in the same way, and is now healed, as you see, by primary union. I hope to be able to obtain movable joints in both these cases.

The third patient was admitted into hospital with suppuration in the joint, and dislocation backwards of the tibia. I opened the joint fourteen days ago, by semi-lunar incision, removed the synovial membrane, and the patella which was extensively diseased, and then sawed off the ends of the bones, the tourniquet was removed and reapplied after bleeding had been stopped, as far as possible, the joint irrigated, sutured and dressed as in the previous cases; a small drainage tube was inserted, and removed on the second day. The child has never had a bad symptom, and now, fourteen days after operation, the wound is perfectly healed, and everything is going on satisfactorily.

I have never seen an excision of the knee heal so rapidly, and it contrasts, as a result of modern surgery, very favourably with the results obtained after long standing drainage and suppuration.

ACROMEGALY.

Dr. George Murray: I have brought before you this evening three female patients as illustrations of two very interesting diseases—acromegaly and myxœdema. These two diseases are in some respects similar, so that the differential diagnosis is not always so easy as in these cases in which you will be able to contrast and compare the characteristic symptoms without any difficulty.

The first patient is a widow, aged 34. Four years ago, she first noticed the onset of the present symptoms. The features gradually enlarged. The nose became larger and the lips thicker. The change in her appearance before long became so marked that even her friends failed to recognise her. The hands became distinctly enlarged, and the skin grew coarse. She felt languid and weary. Not long after, a prominence appeared at the back of the neck, in the lower cervical region of the spine. At the present time, she

complains of a pain which shoots through the head from the sub-occipital region to the root of the nose, and of a constant craving for food and drink. She dislikes to be among strangers. She has a weary, prematurely-old appearance. The features are large and coarse. This is well seen in the nose, which is large—in the thickened lips and heavy brows. The lower jaw does not appear to be at all enlarged. The hands are much enlarged, but not deformed, and the enlargement appears to be a general overgrowth of the whole hand. The forearm is not enlarged. The shoulders are large, and shew a marked increase in muscular development. There is a forward curve in the spine, with some prominence in the lower cervical region. The upper ribs on the right side in front are bowed out forwards. The second and third ribs are thickened and enlarged. The feet are not affected. She has been passing a large quantity of urine for the last eight months—she says sometimes as much as two quarts during the night. The urine has a specific gravity of 1040, and contains a large amount of sugar. The pulse is weak, regular and frequent, varying between 100 and 132. She has not menstruated during the last two years. She is rather sensitive to the cold. This patient, then, presents a fairly good clinical picture of acromegaly, a disease to which attention has only been drawn in recent years, especially by Marie and other continental writers. Briefly, the characteristic symptoms which this patient exhibits are: enlargement of the features, overgrowth of the hands, curvature of the spine, depravity of the thorax, hypertrophy of the shoulder muscles, coarseness of the skin, craving for food and drink, polyuria, cessation of menstruation, and neuralgic pains. This patient has diabetes mellitus as well. Diabetes insipidus appears to be a common complication of acromegaly, and Strümpell has recorded one case which, like this, was complicated with diabetes mellitus.

The pathology of this peculiar condition has not been satisfactorily made out. The enlargement of the extremities is a general hypertrophy. *Post-mortem.*—Enlargement of the pituitary body, with dilatation of the sella turcia, has been found in some cases, but not in all.

MYXŒDEMA TREATED BY INJECTIONS OF THYROID EXTRACT.

The second patient, a single woman of 52, is a case of myxœdema. In this case, by the kind permission of Dr. James Angus and the committee of the Hospital for Incurables, to whom I wish to express my thanks, I have been able to carry out the treatment by injections of thyroid extract.

The symptoms first came on gradually twelve years ago, when she came to the Royal Infirmary, and remained under Dr. Oliver's care, who told her then that she was suffering from myxœdema. So that we know for certain that the disease has already lasted for

twelve years in this case, and I only regret that Dr. Oliver is not here this evening to tell us something of her condition at that time. Five years ago she was admitted into the Hospital for Incurables, where she has since remained in much the same condition, with the exception that she lost almost all her hair during that period. When I first saw her, last October, her aspect was typical, as is well shewn by this photograph, which I had taken at that time. The features were thickened and swollen, especially the cheeks and nose, and there was some swelling of the eyelids. All the hair had disappeared from the head, with the exception of two scanty tufts in each temporal region. The scalp was covered with a dry, brown layer of epidermis, which could not be removed. The hands were not notably swollen, but the palms were very dry, and deeply cracked. She had considerable difficulty in walking, and found it required a great effort to do anything. The speech was not specially affected. Through the kindness of the matron and nurses of the Hospital, I have been able to have a careful record of the temperature kept, both before and during the time of the treatment, which I now lay before you. You will notice that before the commencement of the treatment the temperature was subnormal, and varied between 95 degs. and 96 degs. in the left axilla. The treatment was commenced on November 1st last year, and has been carried on regularly since then. The thyroid extract has been prepared for me each week by Messrs. Brady and Martin, in the manner I described to you at the October meeting of this Society. Twenty-five minims of the extract have been injected beneath the loose skin of the back each week. With the exception of the first two injections, this quantity has been given in a single dose once in the week, with the antiseptic precautions before described. Since November 1st she has received 16 injections, or rather more than six drachms of the extract altogether. By the middle of November the temperature had distinctly improved, and the dried epidermis began to peel off the scalp. At the beginning of December the temperature had risen to the normal height, and has remained normal ever since. By the middle of December the hair had commenced to grow again on the scalp, the swelling of the face had distinctly diminished, perspiration had taken place, and the patient had become more active.

In the middle of January the hair on the scalp had grown to nearly half an inch in length, the swelling of the face and neck had still further diminished, the palms of the hands and the skin as a whole was softer, and the patient could walk better than before.

At the present time you will see, on examining the patient, that she still continues to improve. The hair is nearly an inch long, and healthy in appearance. There is but little swelling of the face left. The temperature is normal. The walking power has im-

proved so much that she can now help other patients. The nails also shew an improvement, and a distinct difference can be seen between the part of each nail which grew before the treatment was started and that which has grown since. As the patient was at about her best when the treatment was commenced, the improvement can only be due to the treatment adopted; and this is all the more interesting when we remember that it has taken place during that part of the year in which I find that myxœdema patients generally get gradually worse.

The urine has been carefully measured, but I have not been able to observe any definite increase in the quantity of urine passed after each injection, such as was described by Mr. Henry Fenwick.

As the object of this method of treatment is to supply the want of thyroid secretion in as natural a manner as possible, the injected fluid should be left lying under the skin without any pressure being made upon it, so that it may be slowly absorbed by the lymphatics, and carried by them to the blood, just as the secretion of the thyroid gland is carried away by the lymphatics in a healthy person. The treatment of myxœdema by grafting a new thyroid into the patient is theoretically a better method; but the fact that the causes which led to the atrophy of the patient's thyroid gland in the first place are probably still at work, and will soon cause the new one to do the same, is against its practical success. In none of my cases have I had any abscess after injection. Sometimes there has been some malaise, and once a short hystero-epilectic attack. These were, I think, both brought on by trying to promote rapid absorption of the fluid by pressure. The third patient is the case I have shewn here twice before. I have brought her this evening, to shew you that the improvement which you saw had taken place in her last October, after six months' treatment, has been fully maintained throngh the winter, though she has only had eight injections of 25 minims each since October. At one time I left off the injections, as I wished to see how soon the symptoms of myxœdema would return. After five weeks the old symptoms began to reappear, but they soon disappeared again on renewing the injections once a week.

MYXŒDEMA.

Dr. Limont: This patient presents, as you see, the characteristic appearances of myxœdema.

She came to hospital about ten days ago complaining of feeling very cold, and of what she calls "a complete change in herself."

She dates her illness back to a certain day about sixteen months ago.

She is aged 40, is married, and has one child 13 years old. Only been pregnant the once. She has had no previous illnesses. Menstruation was always normal till sixteen months ago. There was

then an excessive period, and since that she has seen nothing. She always felt cold very much, even when a girl, but during the last sixteen months has felt it much more severely.

Her face has the usual appearance. It is so much changed that many of her friends do not recognise her. Her hands are stiff, skin dry, thick, somewhat cracked, and she finds it impossible to keep them clean. She never perspires. Walking is uncertain and shaky. Tongue large, the soft palate seems unnaturally motionless. Thyroid cannot be felt. Temperature is below normal.

Her memory is much impaired. She has become very irritable.

She only came to hospital a few days ago, and no special treatment has yet been tried.

PATIENTS OPERATED ON FOR CANCER OF BREAST.

Mr. Rutherford Morison: This patient, 53 years of age, was operated on by me for cancer of the breast in June of last year. At that time, only the breast was removed, along with the pectoral fascia, for, as has been my custom, I do not remove the axillary contents unless there is evidence of disease there.

She returned in January of this year with a malignant nodule on her chest, at a point midway between the ensiform cartilage and axilla, and evident disease in the axillary glands. You will observe the very long—about a foot—recent scar running directly downwards from the coracoid process. The operation was done ten days ago, and the immense wound healed by first intention, without drainage and without constitutional disturbance.

A portion of skin, 3 or 4 inches long and $1\frac{1}{2}$ inches broad, was taken away in the centre of the incision, with a nodular growth to which it was attached, and the skin on either side was reflected. The whole chain of diseased glands along the lower border of the pectoralis minor, with a large piece of pectoralis major, to which they were adherent, was removed, and the axilla freely exposed by division of the pectoralis major and minor over its centre. The axillary contents were carefully dissected out in one piece, leaving only the blood-vessels and nerves at the completion of the operation.

The case cannot be described as one of recurrent carcinoma, for the original tumour was not of rapid growth, and there can be little doubt that, though nothing was discovered until six weeks ago, the parts recently removed were diseased at the time of the first operation.

My object in bringing this case forward is to raise the point for discussion as to what is the proper operation for breast cancer; whether in every case the axillary contents should be cleared out, and how far radical operations for the cure of breast cancer are to go. I am a strong advocate for radical operations in malignant disease, and would give a wide berth to evident malignant growths, but it seems to me unreasonable to attack structures not visibly or

palpably diseased. This case may be taken as an argument in favour of a radical operation, but the most radical operation advocated would not have delivered her of the largest growth on the side of the chest. It is much too low to have been reached by any ordinary operation.

Experience is after all the only thing to settle a question of this sort, and I can at present recall three cases, whose subsequent histories I know, in which I excised the breast only for cancer.

Case 1. Died of cancer of the liver two years after operation, without any disease elsewhere, or in scar, or axillary glands, as verified by *post-mortem.*

Case 2. A patient of Dr. Morgan, of Sunderland, where she died, had the breast excised by me for cancer eight years before. Dr. Morgan and I agreed that death was caused by cancer of the stomach. There was no recurrence locally or in axillary glands.

Case 3. Breast excised for scirrhus six years ago. Patient still alive, and without any disease.

In America these patients would have had their breasts and the skin covering them removed, the pectoralis major entirely taken away, and the axillary contents dissected out. They got off more easily with me, and lost nothing by it, for the disease did not recur in any of the structures that would have been sacrificed. My experience would lead me to believe that if the axillary contents are cleanly removed, that the prognosis for cases of excision of the breast and axillary glands for scirrhus is more hopeful than one is usually led to suspect. I have in mind two cases in which I performed this operation more than five years ago, both patients being well and free from recurrence.

A REMARKABLE RECOVERY AFTER AN ACCIDENT.

Mr. Rutherford Morison: Twenty-seven years ago, when 15 years of age, this patient fell forty fathoms into a mine and received a fracture of both thighs and the left leg, also the right elbow and shoulder and jaw bone. He was confined to bed for eleven months. The doctor who first saw him after the accident said it was no use doing anything, as he could not live. Between four and five years after he went to Truro Infirmary, where Dr. Sharpe cut down on the ends of one of the ununited femurs, sawed them off, and pegged them together with silver wire. The operation was not a success, and both femurs are still ununited. In spite of this, he is able to stand thirteen hours a day at his business with a small and almost useless leather support; but without anything at all in the way of support, he can walk fairly well.

The case is remarkable enough up to this point, but its most striking feature has still to be related. You will observe under his chin a large cicatrix. The story is that, when found, his nose and mouth were buried in mud, and he was breathing through a large opening which left this scar.

CASE OF RADICAL CURE OF INGUINAL HERNIA BY HALSTED'S METHOD.

Dr. HUME: The patient, a man aged 53, was admitted into the Royal Infirmary with a very large left scrotal hernia. The tumour measured 12 inches in length from the pubes, and 20 inches in circumference. The man was incapacitated by the rupture, and was suffering, in consequence, from great mental depression. The operation was conducted in the following manner:—An incision was made through skin and superficial fascia, extending from a point just inside the anterior superior spine of the ilium on to the neck of the scrotal tumour. The dissection was carried down to the hernial sac, and through the fascial and muscular layers throughout the whole extent of the skin incision; that is, it was carried down to the peritoneum. An opening was then made in the sac, and the hernial contents examined. They were found to consist of the sigmoid flexure and a large mass of thickened omentum. It was found to be impossible to return the contents into the abdominal cavity without dividing the peritoneum throughout the extent of the wound. The contents were then with difficulty returned. The next step was the freeing of the sac from its bed, and from the strictures of the cord. When freed, the sac was held up so as to put the peritoneum on the stretch, and the whole length of the peritonial incision was sutured with a series of quilted stitches. The sac and superfluous peritoneal edges were cut away nearly close up to the line of stitches. The constituents of the cord were now gathered into the outer angle of the wound, and secured there by a quilted suture through the cut edges of the internal oblique and transversalis. A row of similar sutures continued towards the pubes completed the suturing of the internal oblique to conjoined tendon. The aponeurosis of the external oblique was stitched in a similar manner: and, lastly, the skin brought together with sutures of silk-worm gut. The entire wound healed by first intention. It was pointed out that, without the extensive division of the peritoneum, the hernial contents could not have been returned; but that, in an ordinary case, the sac need only be incised sufficiently to introduce two fingers, with which to reduce the contents. Before cutting away the sac, the same bracing up method of suturing the peritoneum would in any case be adopted; and also the separate suturing of the muscular and aponeurotic layers. The distinctive feature of the method of operating was, however, the transplantation of the cord, by which it was sought to obliterate the inguinal canal, which, without this transplantation, must remain a weak part of the abdominal wall, and favour the reproduction of the rupture. No opinion in this case could, of course, be given as to the probable permanence of the cure, but at present the wall appears to be very strong.

HARE-LIP.

Dr. HUME shewed a case of hare-lip which had been operated on a week ago, and also an aggravated case of double hare-lip, with pre-maxilla on the tip of the nose, previous to operation. He stated that he relied entirely on stitches of silk-worm gut, and in no case used hare-lip pins, trusting to the free raising of the lip and cheek, if necessary, from the upper jaw in order to obviate tension. He also attached importance to the separate suturing on the inside of the lip of the mucous membrane, so as to prevent the tip of the tongue or secretions of the mouth getting between the surfaces of the wound.

DILATED STOMACH.

Dr. LIMONT: This case is an interesting one when considered in connection with some of the cases and specimens lately shewn before the Society.

He suffers from a markedly dilated stomach. His appetite is good; but half-an-hour after eating he begins to feel greatly distended. He vomits at irregular intervals a very sour material, and brings up large quantities of flatus. Before vomiting, the stomach is usually distended. He brings up sometimes half a-pan full at a time, and is much relieved afterwards. The bowels are greatly confined. As has been noticed in these cases, the urine contains a considerable quantity of phosphates, and these are, if anything, increased when the stomach is being washed out.

The stomach extends from the fifth space down to the level of the umbilicus, in the left nipple line, and can be made out two inches to the right of the umbilicus. Near the position of the pylorus, can be felt a small hard body, about the size of the distal phalange of the little finger; it is not tender, and moves with respiration. He has lost about a stone in weight.

He has been treated by purgatives and by washing out the stomach; but I cannot say he is improved.

Symptoms similar to the present have troubled him for fifteen years; latterly they have been so severe as to render him unfit for work. I consider it a case of simple stricture of pylorus and duodenum, and think it a case for surgical interference.

Prof. PHILIPSON was of the opinion that the dilatation of the stomach was dependent upon a simple stricture of the pylorus, and regarded the case as a proper one for the operation of pylorectomy.

ENLARGED GLANDS IN NECK.

Dr. LIMONT: This case raises two important points, first as regards diagnosis, and secondly as regards treatment.

Diagnosis seems to me to be between lymphadenomatous and strumous enlargement.

The patient is aged 26, and is a rivetter. When he was 17, he had swollen glands under the symphisis, which suppurated. Two years ago the present enlargement began at first at angle of jaw on right side; the enlargement still continues to progress.

The glands involved are the sublingual, submaxillary, and those along the carotid and subclavian arteries. In the right axilla one is slightly increased, in the left I can find none.

The glands are free from the skin, and move on one another; they are not tender; they vary in consistency—some hard, some soft and springy.

I cannot find any indication of increase of intrathoracic glands.

The patient is pale, red blood corpuscles average 70 per cent. of the normal. There is no appreciable enlargement of the spleen; he has lost about eight pounds in weight since illness began.

The patient, of course, desires to get rid of the unsightly enlargement, but his chief trouble is cerebral, and I would like to hear the opinion of the members as to whether we are justified in diagnosing here the once familiar, but now rarely heard of condition, "cerebral congestion." He complains greatly of headache and giddiness, which are increased in stooping. There is ringing in the ears, and even flashes of light before the eyes. He sleeps well, apparently, but complains of horrible dreams, *e.g.*, falling, suffocation, &c. It will be seen that the pupils are enlarged, but equal and reactory to light. On ophthalmiscopic examination, the arteries and veins are found to be large and tortuous; the veins pulsating; the edges of the disc are ill defined.

Arsenic has been given freely, but has not diminished the glandular enlargement.

Such is the history of the patient's complaint and condition. I would like to hear the opinion of the members on the following points:—

Is there cerebral congestion here, and if so, is it from the pressure of the glands on the veins in the neck?

Is the enlargement lymphadenomatous or scrofulous?

Is removal of the glands advisable?

I think myself that the cerebral trouble is due to pressure in the neck. With regard to the second point, I incline to the diagnosis of lymphadenoma, but from previous experience, will not be at all surprised to find them scrofulous. With glands limited to the neck in this way one's diagnosis must always be doubtful. This is, however, no great disadvantage, as I believe the correct treatment for both varieties is removal. In some cases of lymphadenoma, after operation, there has been no recurrence for several years at least.

Prof. Philipson, after examining the patient, stated that he concurred with Dr. Limont, that the case was one of lymphadenoma. In the absence of the three cardinal symptoms of intracranial tumour, viz., persistent headache, vomiting, and optic neuritis, he was in favour of the alteration in the retinal vessels described by Dr. Limont being due to pressure of the enlarged glands on the vessels of the neck. He advocated the treatment by the administration of arsenic internally.

SPECIMEN FROM A CASE OE GASTRO-ENTEROSTOMY.

Dr. Hume shewed the stomach and attached jejunum from a patient who had survived the operation of gastro-enterostomy for two months. At first the vomiting and pain had been altogether relieved by the operation, and the patient left the hospital improved also in general condition. The vomiting, however, had returned, probably from extension of the growth interfering with the patency of the opening, and the man gradually sank. The parts were shewn in position. The omental graft, which had been wrapped round the junction, could be distinctly traced. All trace of the decalcified bone plates had, of course, disappeared; but some of the silk threads still existed. The opening remained patent, though the tumour had grown up to the margin of it.

CONGENITAL MALFORMATION OF THE HEART.

Dr. George Murray: This heart I removed from a child, aged $1\frac{1}{2}$ years, who was under Dr. Coley's care at the Children's Hospital. He will give you the clinical history of the case. The pericardium was healthy, but was distended by the enlarged heart. The veins on the surface of both ventricles were much distended. The right ventricle is much enlarged, and from the front it looks three times as large as the left. The right auricle is also much enlarged. The heart has been kindly dissected for me by Dr. Howden to shew the various points of interest clearly. On opening the right auricle, the walls are seen to be much thickened. The foramen ovale is only partially closed by a septum, which is pierced by one hole large enough to admit a small pencil, and by several smaller ones. The walls of the right ventricle are $\frac{3}{4}$ inch in thickness, pale, and softer than natural. The tricuspid valves are somewhat thickened and opaque. The pulmonary artery is very small, but quite pervious. It opens from among the columnæ carneæ of the right ventricle. The pulmonary valves have only two cusps. The walls of the left auricle are rather thicker than natural. The walls of the left ventricle are not hypertrophied; in fact, near the apex they are thinner than natural. There is an opening in the upper part of the interventricular septum, with smooth, rounded edges, which is large enough to admit the tip of the little finger. The aorta arises just above this opening, so that it has received blood

from both ventricles, it is somewhat dilated, and the valves are normal. The ductus arteriosus is not patent.

In the brain, the right middle cerebral artery was found to be blocked at a point about $\frac{3}{4}$ inch from its origin by a thrombus, which extended for about $\frac{1}{2}$ inch along the vessel. On cutting into the right cerebral hemisphere, a large area of softening was found, which could not be sharply defined, but which corresponded to the area supplied by the vessel which was blocked.

Dr. Robson shewed a case of malignant growths in the peritoneum.

Dr. Limont: I have examined sections from the omental growth and find them to be scirrhus, with slight colloid changes. It is an interesting specimen, seeing that growth is primary, and not, as is usually the case, secondary.

After the ascitic fluid was withdrawn, the diagnosis was easy; masses the size of the hand were distinctly felt through the abdominal wall.

RESULTS OF MAJOR AMPUTATIONS TREATED ANTISEPTICALLY AT THE ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE, DURING THE YEAR 1891, AND FOR A PERIOD OF THIRTEEN YEARS AND NINE MONTHS, VIZ., FROM APRIL 1st, 1878, TO DECEMBER 31st, 1891.

By FREDERICK PAGE, Surgeon to the Royal Infirmary, Newcastle-upon-Tyne; Consulting Surgeon to the Fleming Memorial Hospital for Sick Children; late Examiner in Clinical Surgery in the University of Edinburgh, &c., &c.

TABLE I.

Table of Major Amputations treated antiseptically in the Royal Infirmary, Newcastle-upon-Tyne, during the year 1891.

	INJURY.			DISEASE.			TOTAL.
	NO.	R.	D.	NO.	R.	D.	
Double Amputations	2	1	1	..	..	..	2
Hip Joint	2	1	1	2	2	..	4
Thigh	5	4	1	14	13	1	19
Knee Joint	1	1	..	..	..	..	1
Leg	10	7	3	6	6	..	16
Ankle Joint	2	2	..	17	17	..	19
Shoulder Joint	3	3	..	2	2	..	5
Arm	6	5	1	..	..	..	6
Forearm	4	4	..	5	5	..	9
Wrist	..	..	..	..	..	..	..
	35	28	7	46	45	1	81

During the year 1891, as will be seen from the above table, 83 major amputations were performed upon 81 patients; two males —an adult and a boy—losing two limbs, in each case a thigh and a leg. This is the largest number of amputations performed in a year, in the Infirmary, during the period I have recorded results, viz., from April 1st, 1878, to December 31st, 1891—13 years and 9 months, and I believe it to be the largest number that has ever been performed in the Institution since its foundation in 1751—one hundred and forty years ago. The mortality has been unusually high, for of the 81 patients operated upon, 8 died=9·8 per cent. The high mortality is accounted for by the nature of some of the accidents. Thirty-five of the patients, all males, were operated upon for injuries, and 7 of them died; 4 within 30 hours of the operation from shock, 2 from blood poisoning, and 1 from delirium tremens. This is a mortality of 20 per cent., and, with the exception of the year 1888, when the mortality from primary amputations was at the rate of 46 per cent., 6 patients out of 13 operated upon dying, it is the highest for nearly 14 years.

During a period of 5 years, viz., from 1883 to 1887, 100 major amputations were performed for injury in the Infirmary, and only 4 patients died. The amputations for disease have been very successful during the past year. Forty-six patients were operated upon, and only 1 died=2·1 per cent. During the 4 years from 1888 to 1891, 138 major amputations were performed for disease, and 5 patients died, a mortality of only 3·6 per cent. It will always be exceedingly difficult, in a hospital situated like ours, to avoid for any lengthened period a comparatively high mortality from primary amputations, so very much depends upon the nature of the accident for which the amputation is performed. How much the mortality from traumatic cases depends upon the nature of the accident is realised by a perusal of the precise cause of the 7 deaths which have occurred after amputation for injury during the year 1891.

PRECISE CAUSE OF DEATH.

1.—Male, aged 29 years; died 30 hours after primary amputation through the middle of the right thigh, and of the left leg at the seat of election, from shock. Railway smash.

2.—Male, aged 32 years; died 29 hours after primary amputation at the hip joint, from shock.

3.—Male, aged 14 years; died 22 hours after primary amputation of the thigh, from shock.

4.—Male, aged 31 years; died 18 hours after amputation of the arm, performed 14 days after a bullet wound of the forearm, from blood poisoning. Patient had septicœmia at the time of the amputation.

5.—Male, aged 9 years; died 5 hours after primary amputation of the leg, from shock. Boy had also a fracture of the pelvis and of the ribs, and other internal injuries.

6.—Male, aged 28 years; died 8 days after primary amputation of the leg at the seat of election, from delirium tremens.

7.—Male, aged 50 years; died 7 days after primary amputation of the leg at the seat of election, from blood poisoning. Had been a heavy drinker.

8.—Female, aged 12 years; died 8 days after amputation of the thigh, for tubercular disease of the knee joint, from tubercular meningitis.

Table II. gives the results of major amputations from January 1st, 1883, to December 31st, 1891, during which period I have recorded the precise cause of each death. Of the 527 patients operated upon, 38 died=7·2 per cent; 207 of the patients were operated upon for injury, and 23 died=11·1 per cent.; 320 of the amputations were for disease, and 15 died=4·6 per cent.

TABLE II.

Table of Major Amputations treated antiseptically in the Royal Infirmary, Newcastle-upon-Tyne, from January 1st, 1883, to December 31st, 1891—a period of nine years.

	INJURY.			DISEASE.			TOTAL.
	NO.	R.	D.	NO.	R.	D.	
Double Amputations	7	4	3	..	..	..	7
Hip Joint	6	3	3	14	10	4	20
Thigh	30	26	4	112	106	6	142
Knee Joint	7	7	..	2	2	..	9
Leg	54	47	7	49	47	2	103
Ankle Joint	21	20	1	93	91	2	114
Shoulder Joint	11	10	1	9	9	..	20
Arm	33	30	3	14	13	1	47
Forearm	31	30	1	27	27	..	58
Wrist	7	7	..	..	..	..	7
	207	184	23	320	305	15	527

Table III. gives the results of major amputations from April 1st, 1878, to December 31st, 1891—a period of thirteen years and nine months.

TABLE III.

Table of Major Amputations treated antiseptically in the Royal Infirmary Newcastle-upon-Tyne, from April 1st, 1878, to Dec. 31st, 1891, a period of thirteen years and nine months.

	INJURY.			DISEASE.			TOTAL.
	NO.	R.	D.	NO.	R.	D.	
Double Amputations	7	4	3	..	..	..	7
Hip Joint	6	3	3	16	10	6	22
Thigh	46	37	9	149	140	9	195
Knee Joint	10	9	1	6	6	..	16
Leg	74	63	11	73	71	2	147
Ankle Joint	25	24	1	109	107	2	134
Shoulder Joint	14	13	1	11	11	..	25
Arm	44	39	5	20	19	1	64
Forearm	39	38	1	31	31	..	70
Wrist	7	7	..	..	..	..	7
	272	237	35	415	395	20	687

The total number is 687, with 55 deaths, a mortality of 8·0 per cent.; 272 of the operations were for injury, with 35 deaths=12·9 per cent.; 415 were for disease, and 20 patients died=4·8 per cent.

NORTHUMBERLAND AND DURHAM
MEDICAL SOCIETY.

SESSION 1891-92.

MARCH MEETING.

The Sixth Monthly Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-upon Tyne, on the evening of Thursday, March 10th, 1892—Dr. Gowans (President) in the chair.

Dr. Arnison said: I rise, sir, not, indeed, with pleasure, but with heartfelt sorrow, to move a resolution expressing our deep regret at the loss we have sustained in the death of Dr. Heath. It is not neeessary for me to say anything in support of the motion; but as an old student and dresser of Dr. Heath's, and in later years his colleague in the Infirmary and co-lecturer in surgery in the College of Medicine, the Society will forgive me if I do more than merely propose the resolution.

As a member of this Society he will be remembered chiefly by the older members, who will readily recall the importance and value of the subjects and cases he brought before them. As Surgeon to the Infirmary, no one could see his work in the wards and in the operating theatre without seeing that he was no ordinary man. As a lecturer, who that ever heard him can forget the man, as he walked into the room, took out of his pocket a scrap of paper two or three inches square, and out of that held the attention of the students enthralled for an hour, as he detailed, clearly and concisely, causes, symptoms, pathology, and treatment, drawing from the richly stored treasures of his memory case after case, illustrating and making more interesting the subject in hand. In his own world he was *facile princeps*, without question the ablest surgeon and one of the most brilliant and fascinating men that Tyneside ever produced. To use an old and hackneyed quotation—"He was a man, take him for all in all we shall not look upon his like again."

Dr. Arnison then moved the following resolution:—"That the Northumberland and Durham Medical Society desires to place on

record its deep sense of the loss which has been sustained, not only by the Society, but by the whole profession and by the public of the North of England, in the death of Dr. Heath, a former president, and for many years an active member of the Society."

This resolution was seconded by Dr. PHILIPSON, and it was unanimously carried that a copy of the resolution be forwarded to the relations of the late Dr. Heath.

Dr. LIMONT rose, and said he had a letter from Dr. Gibb, with an account of Dr. Heath's illness, and the *post-mortem* record. If it was the wish of the Society he would read it. This was accordingly done :—

DR. GIBB'S REPORT.

The late Dr. Heath was attacked during the night in May last with severe pain in the gall bladder, lasting about twelve hours, followed by great tenderness and swelling of it and the adjacent parts, and with a temperature of 102 degs. for a couple of days. He hurried off to the meeting of the General Medical Council in London before he was well, and, again attacked by a relapse of pain in London, was ordered home by his friend, Dr. Samuel Fenwick, of Harley Street, London, who told him he had inflammation of the gall bladder, caused by gall stones, and needed rest.

Arrived in Newcastle, the gall bladder could be easily felt protruding from underneath the edge of the liver, almost down to the level of the umbilicus, like a large turkey's egg in shape and size, and was firm and elastic, and very tender to the touch. There was no jaundice, and no great functional disturbance of the surrounding parts, and but little constitutional disorder. The daily motions were healthy, always free from gall stones, fluid from a morning saline, and were mixed with a quantity of red currant jelly-like tenacious mucus, which we considered came from the interior of the inflamed gall bladder, although Dr. Heath had some doubt as to its source, and examined his rectum with his finger. This bloody mucus changed to ordinary mucus in the course of a week, and disappeared as the tenderness and swelling of the gall bladder subsided. In the course of three weeks Dr. Heath was again moving about, but the gall bladder could still be found very distinctly, about the size of three-parts of an ordinary hen's egg, and was never less during the remainder of his life.

Dr. Heath had three similar attacks during the remaining six months of last year, the most acute one being accompanied by slight jaundice during the first week of the illness. Dr. Fenwick again examined him in the autumn, when he was exceptionally well, and told him he felt stones in the gall bladder, but hoped that, as the gall bladder was shrinking, and free from pain, it might atrophy and encapsule the stones. He thought an operation

to clear out the gall bladder could only be done with any chance of success during the interval between the attacks, but would be very risky at Dr. Heath's age (72), and that it would, from his experience, be improper to operate during the acute inflammatory attacks.

Dr. Heath sent for me on the 23rd of January to examine the gall bladder. He said he had never felt better in his life than during the preceding fortnight, and that he was not aware of having a gall bladder, except that it could still be easily felt enlarged. He drove over to his country house the next day, and the same night was seized with an agonizing gall bladder colic, lasting forty-eight hours, ending in jaundice for a week, and most intense inflammatory swelling of the surrounding parts, with severe and abiding peritoneal pain, confining him to one curled-up position for the succeeding five weeks. The swelling and pain subsided very greatly during the sixth week, but his life was greatly embittered during that time by colon and rectal colic, from loss of power to void the tenacious fæces, and the necessity of resorting to digital means of emptying the gut. Dr. Renton had visited him mostly twice a day during his illness, and found him so much relieved in every way the day before his death that he jokingly told him he was as pleased as if he had received the gift of a hunter. We then considered it desirable that Dr. Heath should begin to diminish the frequent use of morphia, and it was arranged that Dr. Renton and his partner, Dr. Smith, should alternately remain with him to effect this; and it was whilst Dr. Smith was assisting him to turn over that he was seized suddenly with an intense pain in the region of the liver, running up to the tip of the right shoulder, and followed quickly by loss of pulse, collapse, and unconsciousness, ending in death in two hours, evidently from rupture of the gall bladder, or of an abcess into the peritoneum.

During the second week of the fatal attack, Dr. Heath asked us to give him mercury freely, but, fearing the formation of an abcess, and dreading the evil effect mercury would have in preventing a sufficiently firm plastic effusion, to localise any suppuration that might occur, we persuaded him to use morphia instead. Although Dr. Heath's father had died of gall stones, and he admitted the correctness of our diagnosis, he always asserted that the attacks arose from chills, and a lingering doubt always appeared to exist in his mind as to the exact nature of the attacks, causing him to put aside all arguments that were advanced for the necessity of an operation until the week before his death. When, in response to my assertion that if I were in his shoes, and it pleased God to allow me to get over this attack, I would have my gall bladder opened and cleared out; it appears he mentioned to his housekeeper that he had made up his mind to submit to the operation if he recovered.

We had a difficulty in securing a *post-mortem* until the third day, when putrefaction was rather advanced. The peritoneal cavity contained a sufficient quantity of brown, foul, dirty, thin puriform liquid to prove an abscess had burst into the peritoneum. Fairly firm adhesions existed, glueing together the adjoining surfaces of the liver, gall bladder, duodenum, and colon. A diffused abscess was found behind and between those adherent parts, and in front of the side of the spine and adjoining abdominal wall. There was a slight rupture of this abscess into the peritoneum, immediately below the posterior edge of the liver. Although Dr. Renton was very careful in separating the various adhesions, the soft and partially-rotten gall bladder gave way, revealing five rough and very irregular gall stones, three of them of good size, the largest somewhat bigger than a grape. The duodenum was softened, and also gave way where it was glued to the gall bladder, and the gall ducts could not be made out.

It was very clear that if any operation had been attempted after the first week of this fatal attack, it would have been a failure, and quickly fatal.

It was curious that, after a temperature of 102 during the first days, the heat was normal, or most often sub-normal, and there never was a rigor.

A NEW MEDICAL JOURNAL.

Mr. Rutherford Morison brought forward a suggestion that the Transactions of the Society be incorporated with a new monthly journal, to be called the "Northumberland and Durham Medical Journal."

1. The chief arguments in favour of this were: There is no medical centre of the size and importance of Newcastle without a medical paper of its own.

2. The transactions of the Society are becoming increasingly difficult to make up, for papers are crowded out by the exhibition of patients and specimens which the Society cannot discourage, regarding this as its most important and useful function.

3. For seven months in the year there is no record of the local work being done, and everyone spoken to on the subject thought the paper should be a success. Mr. Morison said it was not his object in bringing forward the suggestion to ask the Society to settle anything definitely at once. His idea was that the paper might also include the Clinical Society's Transactions, and be available for others than members of either society; but the only way he knew of bringing the matter to a practical issue, was to take the action he had in bringing the subject before them. If the meeting decided in favour of the scheme, he proposed, in conjunction with Dr. Limont, to bring a plan for carrying it out before the

next Annual Meeting, when the whole subject would be ripe for discussion and arrangement.

Dr. PHILIPSON proposed that steps be taken for the starting of a medical journal, and that Dr. Limont and Mr. Morison bring forward a scheme at the next Annual Meeting.

This was seconded by Dr. BROADBENT, and carried unanimously.

Dr. OLIVER: This man, aged 37, a grocer's assistant, was admitted into the Infirmary two years ago last January, complaining of pain in abdomen and of occasional vomiting. The case had been regarded as one of aggravated dyspepsia; but, on examination, I found an enlarged area of splenic dulness; it extended below the lowest rib, and forward. I could feel a distinct tumour, but, as it had a cyst-like feeling, I inserted a needle and drew off pus. I at once aspirated, drawing off nearly a pint of pus. For two days patient did remarkably well; but on the third day, without any warning, about a pint of pus escaped per rectum. The pus continued to come away by rectum in large quantities for several days, patient feeling much relieved. In a fortnight after this he brought up several ounces of pus, and for months after he continued to expectorate pus. Mr. Williamson saw him with me on several occasions, and although the flank and front of abdomen was punctured, with the view of hitting the abscess cavity, so as to cut into it and drain it, we never succeeded in reaching the pus. At this time the patient was extremely ill. He subsequently left the Infirmary, and some months afterwards I was asked to see him by his medical attendant, as he was thought to be dying. He was suffering from great dyspnœa and præcordial pain, and, on examination, the left chest was now found to be absolutely dull on percussion, but no fluid was removed by the hypodermic needle, though inserted in several places. Under medicinal treatment he gradually improved, so that now you see a man in good condition; the interest of the case lying in the fact that this man, after having suffered so long and from such a serious illness, viz., where an abdominal abscess first aspirated, then which opened into intestine, and ultimately perforated through diaphragm and lung, should have made such an excellent recovery.

LAPAROTOMY FOR OBSTRUCTION OF THE BOWELS.

Dr. JAMES DRUMMOND: The case which I bring before the Society to-night, is an example of the advantages of modern scientific surgery as contrasted with the *vis medicatrix naturæ*. If this case had not been accurately diagnosed, and the proper measures taken for his relief, he would have assuredly died in a short time.

The history is shortly as follows:—Twelve years ago this young man had an attack of peritonitis of a severe character, from which

he eventually made a good recovery. Neither previous to this nor subsequently has he had any illness. The family history is good, there being no trace of syphilis, scrofula, or tubercle. The patient is a joiner to trade, and, on February 3rd, he was lifting up a heavy basket of tools to someone higher up on a ladder. He felt something go wrong in his abdomen, and had to come home from work in considerable pain. He tried the usual domestic remedies, and next morning, feeling somewhat better, set out for his work. The pain returned, however, and he had to come home and had a free evacuation from his bowels. He continued in pain till the fifth day (February 7th) after his first illness, when he sent for me. He was lying in bed with his knees drawn up; a pinched and anxious expression on his face; tenderness on pressure over the abdomen, especially on the left side slightly above the level of the umbilicus. His pulse was 120, weak and thready, temperature 97 degs. He had passed neither flatus or fæces for four days. My diagnosis was complete obstruction of the bowels. The symptoms did not point to an acute strangulation of the bowel, but I thought the cause must be either bands or intussusception. There was not much distension of the abdomen, but there was a feeling of fulness over the tender area already referred to. I performed abdominal section on February 9th, the sixth day after the onset of the illness.

On opening the abdomen, in the middle line, between the umbilicus and the pubes, I at once came upon collapsed small intestine; this was followed for a short distance when I came upon a band about an inch in breadth and two to three inches in length. It seemed to spring from the mesentery near the spine, and was attached to the posterior abdominal wall on the left side. The constriction was so tight that a finger could not be passed through, and the gut was congested and thickened. The band was tied at two places with silk ligature and cut between. As the gut remained collapsed I looked for some further cause of strangulation. I then came upon a loop of distended and congested gut, which I think was part of the ileum, this had become acutely twisted, and at its base it was tightly constricted by a cord-like band. This band was evidently a divertriculum, being of a hollow tube-like character at its origin, and ending in a firm cord. Its origin was in the small intestine and terminated underneath the transverse colon near the vertebral column. This was treated in the same manner as the previous band, and on untwisting the volvulus there was immediate gurgling and rumbling of air which passed all along the hitherto collapsed intestine, so that I was satisfied complete relief had been obtained. The abdominal wound was then stitched up and dressed with dry antiseptic dressings. In a few hours he passed flatus freely, and next day had a free evacuation from the bowels. The wound was not dressed for ten days, when it was nearly quite healed. The temperature was

never above normal. I have to thank our President and also Drs. Crisp, Macdonald, and Sinclair for their valuable assistance at the operation.

EXCISION OF THE KNEE.

Mr. PAGE: It is five weeks, sir, since this lad's knee-joint was excised for tubercular disease. No drainage tube was used. The wound has not been seen since the day of operation, and I propose now to have it dressed for the first time, and to remove the silk-worm gut sutures. The boy has had a normal temperature, no pain, and he has not missed a meal since the operation. The wound was dressed with Tillman's dressing, which I saw recently in use in the practice of Mr. Treevers at the London Hospital, and find, as Mr. Treevers told me I should, a very clean, light, and capital dressing. On removal of the dressings, the wound was found to be healed.

SUPRAVAGINAL HYSTERECTOMY.

Mr. PAGE: This case is interesting, and more particularly from a diagnostic point of view. The patient, who is about 30 years of age, was admitted into the Royal Infirmary a month ago suffering from what was supposed to be an ovarian tumour. The history and physical signs were those of an ovarian tumour, and the sound passed into the uterus only the normal length. Patient had suffered from two or three severe attacks of peritonitis. On opening the abdomen, the anterior surface of the tumour was found to be firmly adherent to the peritoneum. The incision was carried into the cavity of the tumour, and some pints of thin, bloody fluid let out. On introducing the hand, the interior of the tumour was found to contain a large quantity of semi-organized clot. On peeling from the peritoneum the anterior surface of the tumour, its apex and sides were found to be also adherent to intestines and peritoneum, so that its separation was tedious. Below, it was found to be continuous with the uterus. Kœberlé's serrenœud was applied, and all above the wire cut away. Patient has made a good recovery. The inconvenience of treating uterine tumours by an extra peritoneal stump is sufficiently apparent, and it is to be hoped some more favourable results will at no very distant date be obtained by retaining the stump in the abdominal cavity than have as yet been recorded. I have no doubt the time will come when the extra peritoneal method of hysterectomy will cease to be practised.

RESTORATION OF LOWER LIP BY MR. SYME'S METHOD.

Mr. PAGE: This man has had the whole of the lower lip removed for epithelioma. The case had been neglected, and was not a favourable one for surgical interference, and I fear the disease has not

been got rid of. I shew the case, however, as a good example of a new lip got from Mr. Syme's operation, which seems to me to have manifest advantages over either Buchanan's or Brun's method.

DILATED STOMACH.

Mr. Page: You will remember, sir, the case of dilated stomach shewn at the last meeting of the Society by my colleague, Dr. Limont, who sought and obtained an expression of opinion as to whether the man ought to be treated surgically. It was considered to be a fit case for surgical treatment, and a few days after the patient was transferred to my ward. I need not go again into the history of the case, but would like to draw attention to the fact that symptoms of derangement of the digestion existed for fourteen years, and that they commenced immediately after the patient had received a severe blow over the pit of the stomach. The three methods of surgical treatment at our disposal are Loreta's dilatation of the pylorus, as it is called, but which is, certainly, something more than dilatation—gastro-enterostomy and a plan suggested about the same time by Mikuliez and Heineke, a good account of which (together with details of three cases) is published in the *Medical Press and Circular* for the month of February, by Dr. Senn of Chicago. Loreta's plan is very fatal and not good, I think, in principle. Gastro-enterostomy is undoubtedly a very perfect and excellent operation. I have not had an opportuuity of seeing many cases; but the very brilliant result of Dr. A. Morison's case, shewn lately to this Society, made a great impression on my mind. The operation in Dr. Morison's case was performed upon a man dying from malignant disease of the pylorus, and not only has life been saved, but health has been regained. Dr. A. Morison's is the most successful case of gastro-enterostomy I have heard or read of, and I congratulate him upon the triumph he has achieved. I, however, elected to perform Mikuliez's or Heineke's operation, pyloro-plasty as it is called. It is only nine days since the operation, and I could shew the patient this evening, but the night is so cold I fear to remove him from his warm room. He has done—and is doing well; has recovered from the operation, and it now only remains to be seen how far the new pylorus will answer its purpose. I shall hope, sir, next Session to be able to shew you this man, and in good physical condition.

Dr. Limont: The history of severe injury in the epigastric region and onset of the symptoms immediately afterwards, together with the absence of any history of other disease in the region, was strong evidence that this was a case of traumatic stenosis of the pyloric end of the stomach.

As was pointed out, when the patient was shewn at last meeting, a hard body could be felt in the region of the pylorus, and at the operation this hard body was found to be the cicatrix.

As regards the condition of the walls of the stomach, they were seen to be thicker than normal, in fact in a state of hypertrophy.

The case was an extremely interesting one as regards its etiology, and highly satisfactory as regards the result of the operation.

CHARCOT'S JOINT DISEASE.

Dr. LIMONT: Fifteen months ago, this man came to hospital, complaining of loss of power in his leg; the weakness having been perceptible for three weeks.

A year before the commencement of this illness, he began to suffer from what was called sub-acute rheumatism, lumbago, and sciatica, and was unable to work for seven months; he recovered and worked for five months, and then this illness began.

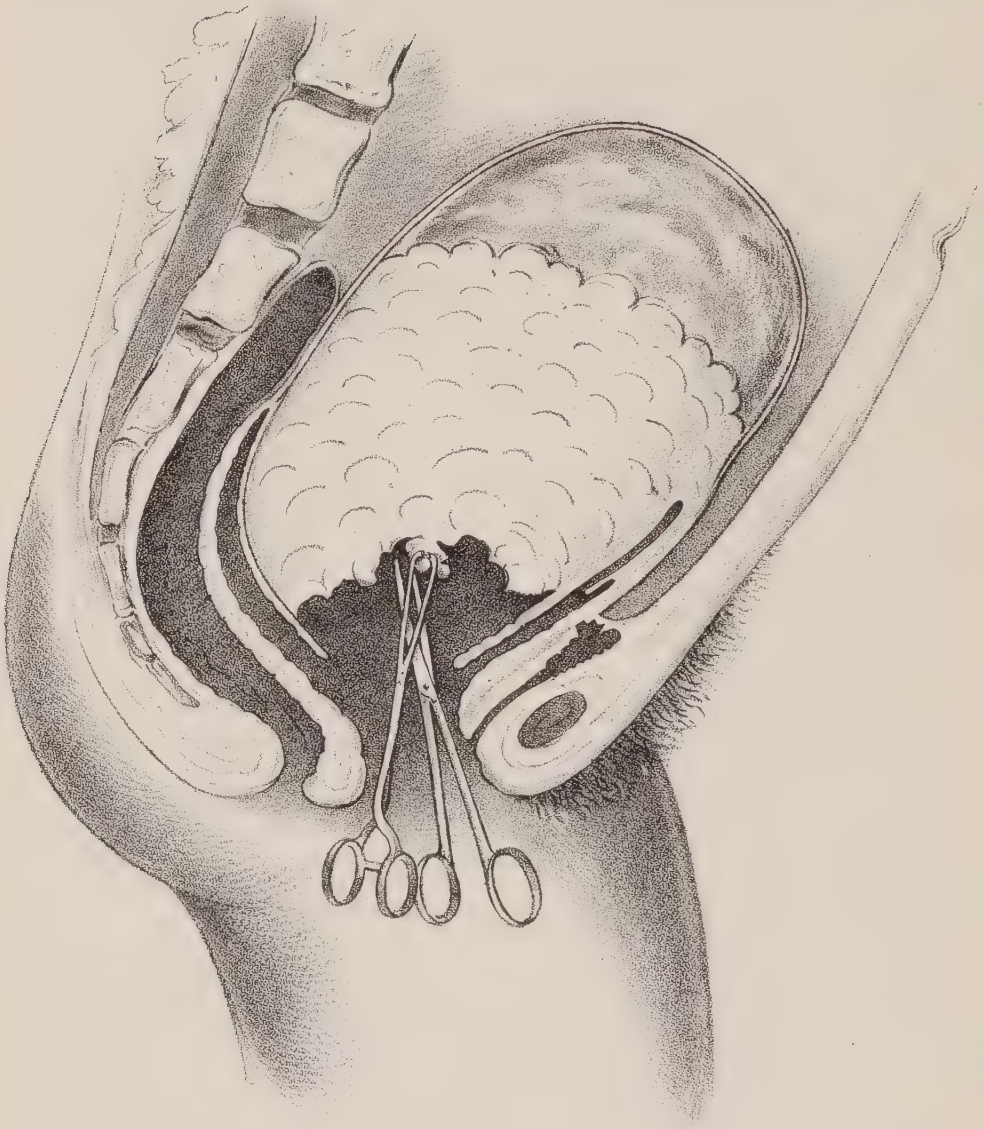
His first symptoms were cramps and tinglings in the left thigh, soon followed by great weakness of the thigh and a sensation of cold in it.

On examination, there was found considerable loss of power in the left thigh, with slight wasting; also slight loss of sensation.

On the left side, a small hard swelling extended from the centre of Poupart's ligament into the thigh; it evidently arose from the pelvis. There was also a large, hard mass occupying the iliac fossa, and extending up as high as the umbilicus. This mass at first sight appeared malignant; it was, however, found to be stationary, and of boney hardness. The weakness, &c., of the leg were regarded as due to a pressure neuritis. At first there was only creaking in the hip joint; now, however, the head and neck of the femur have disappeared, and when the patient stands up the trochanter passes high up towards the iliac chest, producing three or four inches of shortening. The Argyll-Robertson pupil and shooting pains are present, and knee jerk is absent. Otherwise, there were no signs of locomotor ataxia. The disappearance of the head and neck of the femur, and the large bony development in the iliac fossa, are both apparently to be regarded as part of Charcot's joint disease.

Dr. DRUMMOND shewed a case of liver cirrhosis in a child.

Dr. BENINGTON said he had been much struck with the remarks made by Dr. Drummond as to the occurence of cirrhosis of *the liver* as a sequela of scarlatina. He drew the attention of members, however, to the frequency of primary dysmenorrhœa arising from exanthematic cirrhosis of the ovaries as analagous to the cases mentioned by Dr. Drummond.



Dr. Murphy's case of Myomectomy
(par Morcellement.)

NOTES OF A CASE OF VAGINAL MYOMECTOMY *PAR MORCELLEMENT.*

By JAMES MURPHY.

Mr. President,—I have been waiting for several years to find a case of uterine myoma suitable for removal per vaginam by the method of *morcellement*—taking it away piece-meal—invented and practised almost daily by my friend and teacher, M. Péan. I have had the advantage of having assisted M. Péan at at least twenty similar operations, and to see him do the operation is to me one of the most fascinating and interesting sights in the whole field of surgery, and shews him as the original, brilliant, and dexterous surgeon that he is.

I am indebted to my friend Dr. Drummond, of South Shields, for the opportunity of doing my first case, as he was good enough, last January, to place under my care a patient with the following history :—

Mrs. S., æt. 42, mother of one child æt. 18, had suffered from a myoma in the posterior wall of the uterus for some years. For the past few months it had caused her great inconvenience from its pressure on the rectum and bladder, necessitating the almost constant use of the catheter. The pain was severe, and the tumour was growing. Some hæmorrhages had occurred, but the reasons for removing it were—increasing growth, pain, and the rectal and bladder troubles caused by its pressure. On examination, a large tumour could bə felt in the posterior uterine wall, blocking the pelvis. The os was represented by a slit high above the pubis, and the tumour presented in the vagina a condition very similar to a pregnant retroverted uterus. On examination of the abdomen, the tumour reached nearly to the umbilicus.

On February 3rd she was placed in the lithotomy position, her legs supported by Clover's crutch. I then incised the capsule of the tumour from before backwards, stripped it off as far as I could, then applying a powerful forceps to the tumour, snipped off a portion, the size of a Tangerine orange, with a strong scissors. I then removed a similar portion at each side, and in this way, *always working from the circumference to the centre*, removed piece-meal more than three-fourths of the tumour, when I was enabled to enucleate the remaining portion. As there was considerable oozing of blood, I plugged the cavity with some wood wool, a small portion of which I unfortunately overlooked in removing the plug next day. This had the effect of sending the temperature up to 104 degs. on the sixth and seventh days, otherwise she made

an excellent recovery, and the uterus now feels like an ordinary multiparous uterus, and she is in perfect health. The tumour which I shew you weighed a little over two pounds. The accompanying excellent diagram, for which I am indebted to the kindness of my friend Dr. Baigent, explains the mode of operating.

Dr. J. Drummond: Mr. President, I feel that I would be shirking my duty if I did not say a few words in connection with Dr. Murphy's case. The appearance of the specimen now gives one little idea of the size of the tumour before, and immediately after, its removal. It seems to have shrunk to about half its size. Before removal it reached up above the level of the umbilicus, and filled up the whole pelvis. Dr. Murphy separated the tumour from its capsule as far as he could reach with his finger, and as each section was removed a fresh piece was pushed down by pressing on the abdomen, and similarly dealt with. I certainly would never have attempted the removal of such a serious and formidable looking tumour; but Dr. Murphy diagnosed the exact nature of the tumour, and explained the method of dealing with it before the operation. This he carried out in such a bold, skilful, and brilliant manner, that I feel there is hope for any such case as long as we have men like him amongst us.

Mr. Morison congratulated Dr. Murphy on the skill and courage which had enabled him to complete such a formidable operation satisfactorily.

Dr. Benington said that he had been honoured by an invitation from Dr. Murphy to witness this operation, and he accepted the invitation with the greatest pleasure, as he had intended to do the operation himself when a suitable case presented itself, and he was anxious first to see it performed by Dr. Murphy. The operation, however, had failed to impress him favourably, and he did not think he should now ever resort to it.

In the first place, even in the hands of Dr. Murphy, it took two hours, and this he considered a long time, and of itself to constitute a decided drawback.

Moreover, the operation appeared to be comprised of a great deal of grovelling in the dark, combined with sheer muscular effort, and he thought that if an operation, which was neat, pretty, and scientific, was found to be equally effective, it should take the precedence.

He wished Dr. Murphy had stated the particular advantages he claimed for this operation over others which were practised for similar condition, or that he would indicate the cases that were specially suited to this operation.

He could understand this operation having a place in cases where, from a desire of the patients to have children, oorphorectomy or hysterectomy were unadvisable, otherwise he did not see anything in it to warrant its performance.

He failed to appreciate exactly the technique which distinguished this operation from others accomplished by a combination of enucleation and avulsion and removal piece by piece, such as he had witnessed on other occasions.

THE LOCALIZING VALUE OF SOME AFFECTIONS OF THE EYE IN CEREBRAL DISEASE.

By ARCHIBALD PERCIVAL, M.A., M B., B.S. Camb., Ophthalmic Surgeon to the Children's Hospital.

The exact diagnosis of the site of the lesion in an affection of the nervous system has always been a matter of interest to the scientific physician. Owing, however, to the recent advances of surgery the subject has now more than a theoretic bearing, and both surgeons and physicians feel the increased responsibility that these advances have brought in their train. The successes of cerebral surgery have so largely depended on an exact and early regional diagnosis that the study of localizing symptoms has become a matter of supreme practical importance.

It appears to me that sufficient stress has not been laid on the value of eye symptoms in cerebral disease. The eye is supplied by no less than five of the cranial nerves, and the evidence derived from the study of its affections is of the greatest value in localizing disease of the brain. Too often the examination of the eye is confined to a simple glance at the disc; and I may say at the outset that the discovery of optic neuritis or its absence has practically no localizing value whatever.

The first difficulty that confronts us in any case of cerebral disease is that of distinguishing the direct from the indirect or distant symptoms. The latter are not due to the destruction resulting from disease, but are rather the effects of inhibition, or of the vascular or other disturbances in distant parts to which the lesion gives rise. These distant symptoms come and go, while the direct destructive results of the disease are characterized by their permanency; and hence we must guard ourselves against laying undue stress on any symptom, however marked, which has not been under observation for a considerable length of time.

I would say that a regional diagnosis that is based on symptoms which have been of less than a month's duration should be received with the utmost caution. All of us recognize the transient character of the conjugate lateral deviation that occurs so frequently in cerebral hæmorrhage, and the internal strabismus that is observed so often in the earlier stages of locomotor ataxy. It would be illogical to assume that these were direct symptoms, or that they had any value in localizing the site of the *destructive* lesion.

I may say, in passing, that in the number of cases of locomotor ataxy that I have seen, I have so far only met with *internal* strabismus. My impression is that, if external strabismus should occur, it will be found to be associated with other symptoms—*e.g.*, ptosis, etc.—pointing to an affection of the third nerve trunk. I would rather regard this as of independent origin (*e.g.* syphilis) than as due even indirectly to the tabes. But on this point I would be glad to hear the experience of the members present.

Direct or focal symptoms can then only be recognised as such by their greater constancy, and it must, of course, be remembered that disturbances arising from destruction of a nerve centre may be similar to those due to interference with the conductivity of any part of the nerve leading from it. Hence we must bear in mind not only the anatomical position of the highest motor (and sensory) centres, but the exact route by which impulses are conveyed between them and their terminations.

Another difficulty arises in some cases from the latency of localizing symptoms. Extensive destructive lesions may occur in different parts of the brain without giving rise to any of the usual phenomena. I know of no satisfactory explanation of this extraordinary fact; but, of course, in such cases an exact diagnosis becomes impossible.

Focal eye symptoms may be divided into two classes:—

(I.) Disturbances of the afferent impulses, which are indicated by visual sensory or other affections.

(II.) Disturbances of the efferent impulses which reveal themselves chiefly by paralysis or spasm of the ocular muscles.

(I.) (1) The disturbances of tactile sensibility in the eyeball merit a passing notice; they point to some alteration in the ophthalmic nerve in some part of its course. The site of the lesion may be indicated by the distribution of the anæsthetic area, which may suggest the implication of other branches of the fifth, or the limitation of the lesion to the nasal or ciliary branches.

Occasionally a form of keratitis is observed, and may be regarded as evidence of the trophic fibres for the cornea being involved. Merkel, Meissner, and Schiff have shewn that the course of these trophic fibres in lower animals is distinct from that of the sensory fibres, and that they form a separate bundle occupying the inner border of the fifth nerve (Merkel). It is interesting to note that M. Prioleau, from his clinical and *post-mortem* experience, has given some grounds for believing that they are distinct also in man. He has found that in some cases of tubercular meningitis, anæsthesia of the cornea occurs alone, but in a few cases peripheral trophic ulcers with "loss of polish and opalescence" of the cornea. The explanation is to be found in the development of tubercles in

the pial investment of the fifth nerve, the trophic lesions only occurring when the trophic fibres are involved.

In basal tumours this neuro-paralytic keratitis is generally observed when the Gasserian ganglion is invaded by the growth.

(I.) (2) *Visual Disturbances.*—I wish to emphasize the localizing value of some of these affections: they are too often neglected, until all subjective examinations have become impossible. The investigation of the fields of vision affords most important evidence for diagnosing the site of a lesion, but it is essential that the examination should be undertaken in the early stages of cerebral disease. How can a patient, who is racked with pain and half unconscious, submit to the trials of the perimeter, or give any reliable testimony if the attempt be made? By neglecting an early investigation of this point, the opportunity of exact localization of a cerebral tumour is often lost, until the autopsy, which may reveal a growth in a situation which could have been perhaps successfully dealt with by the surgeon.

Homonymous hemianopia.—Hemianopia is the term used to describe loss of half of the field of vision, thus right hemianopia would imply loss of the right half of the field of vision in each eye, and would correspond, of course, to blindness of the left half of each retina.

Allow me briefly to recall to your memory the course of those optic fibres that convey visual impulses to the cortex. On leaving the eye, the optic nerves extend backwards to the chiasma, where they decussate in such a way that the fibres coming from the nasal half of the left retina unite with the fibres from the temporal half of the right retina to form the right optic tract. The left optic tract similarly derives its fibres from the left halves of the two retinæ, corresponding, of course, to the right half of the field of vision. Each optic tract crosses the ventral surface of the crus, then ascending under cover of the temporo-sphenoidal lobe, sweeps round the crus and is lost in the external geniculate body, the pulvinar and anterior corpus quadrigeminum. These bodies form what may be called the lower or primary visual centres, from them a large number of fibres emerge and spread out under the name of the optic radiations, to be distributed to the occipital cortex. It is said that some fibres from the optic tract reach their destination in this region by the posterior part of the internal capsule, and do not enter the basal ganglia. *(Vide diagram.)*

Pathological evidence in the human subject tends to shew that the visual area occupies the cortex of the cuneus, the lingual lobule and the superior occipital convolution. The angular gyrus in man does not seem to play the important part that has been assigned to it in the lower animals.

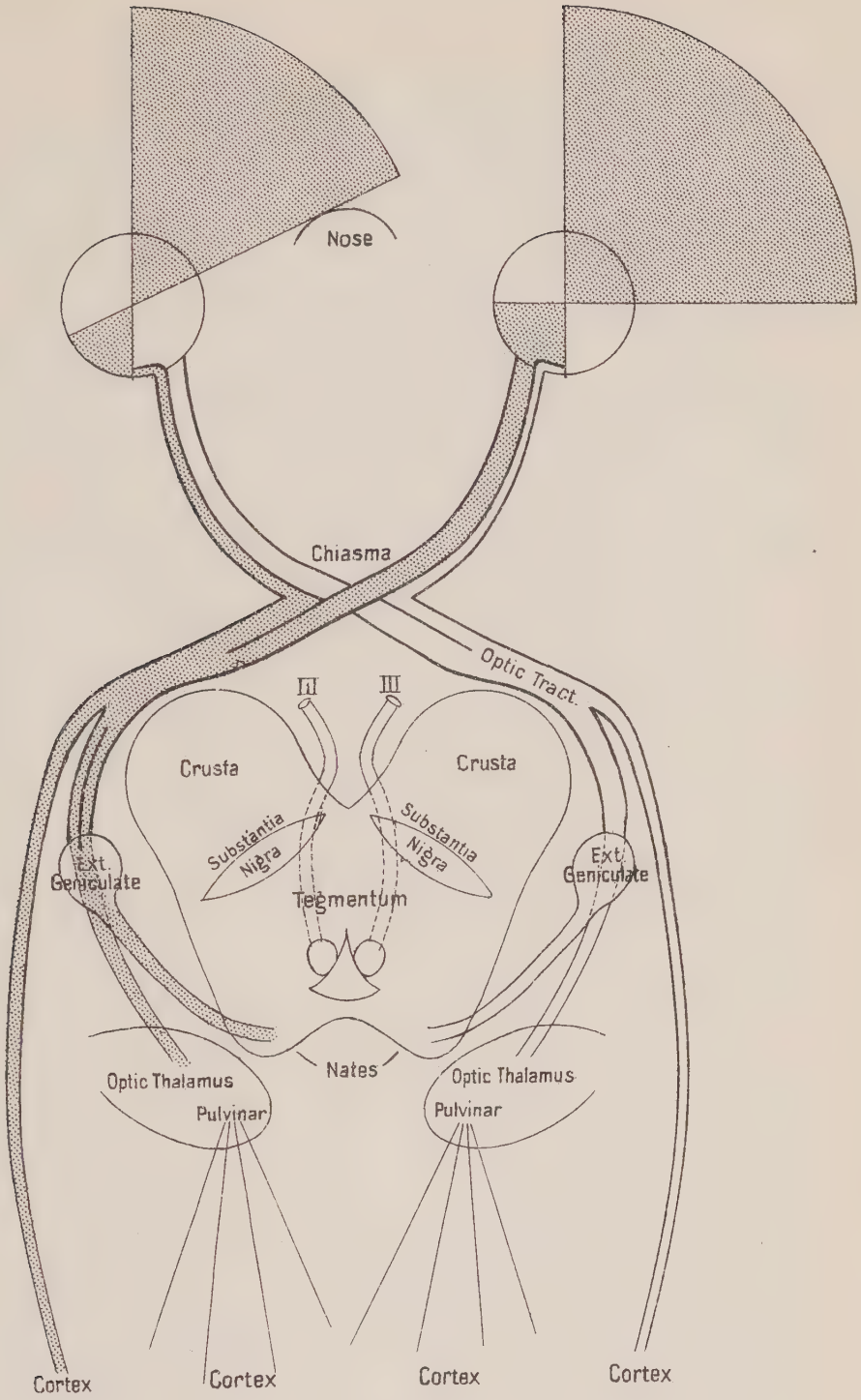


DIAGRAM TO ILLUSTRATE THE COURSE OF THE VISUAL IMPULSES FROM THE RETINA TO THE CORTEX

(Oblique Section).

The shaded sectors indicate the right visual field of each eye, corresponding to the left half of each retina.

The III. nerve is represented as arising from its nucleus in the floor of the Aqueduct of Sylvius passing through the pons and emerging at the inner border of the crus.

Right hemianopia may then be due to a lesion in the left cuneus, left optic radiation, left pulvinar and its neighbourhood, or left optic tract. What means have we for discovering which part of this long path is blocked?

A consideration of the course of the nerve fibres that are concerned in the reflex pupillary movements, for light suggests the method of determining whether the lesion is above or below the nates. The afferent fibres for this reflex are to be found in the optic tracts, and then (some possibly passing through the thalami), they can be traced in the wall of the third ventricle to the anterior part of the nucleus of the third nerve (Stilling), which is situated in the floor of the aqueduct of Sylvius.* The efferent constrictor impulses are conveyed by the third nerve to the ciliary ganglion, and thence by the short ciliary nerves to the sphincter pupillæ: if any link in this chain be broken the reaction of the pupil to light fails to shew itself. When the left optic tract is destroyed in any part of its course, we find on examination right hemianopia. If now a beam of light is concentrated by means of a convex lens (or concave mirror) on the left (blind) half of the retina, no pupil reaction is observed as the afferent impulses for the reflex contraction of the pupil have been blocked by the lesion. This test requires very delicate manipulation in its performance, for if any light is allowed to fall on the right half of the retina the pupil at once contracts. In this way I was able in a case of hemianopia that I saw two years ago to exclude an optic tract lesion. The patient had had a slight apopletic seizure and the right hemianopia was almost the only remaining symptom.

Let me quote, in illustration of this point, a case that was under the care of my former teacher, Dr. Dickinson of St George's Hospital. On admission the patient was found to have right hemianopia, in association with some other less defined cerebral symptoms; the pupils, however, reacted to light. Post-mortem—the left cuneus was almost completely destroyed by softening, owing to extensive atheromatous changes in the arteries. The other patches of softening were more or less distant from this focus, so that this case fully bears out the connection between the cuneus and vision.

Swanzy quotes a case observed by Brieger, in which there was complete blindness of both eyes. Unfortunately only a rough observation was made that both pupils contracted to light, and a diagnosis of double hemianopia, due to a lesion of both occipital lobes, was made. At the autopsy, only the right occipital lobe was found diseased, so that the right hemianopia had still to be explained; a further examination shewed degeneration in the left optic tract. Had the pupillary reaction been more exactly deter-

* There is some evidence for regarding the nates as associated with this reflex. Meynert has traced fibres from them to the third nuclei.

mined during life, the existence of the two lesions could have been diagnosed before death.

Munk, in some of his experiments on dogs, shewed that a correlation existed between parts of the retina and parts of the occipital lobe. It would appear that the different parts of the retina are actually represented by different portions of the cuneus. That this occurs in man also, has been conclusively proved by a case observed by Dr. Henry Hun.

The patient, aged 57, had a slight apoplectic seizure, of which the only permanent symptom was a defect in the field of vision. It consisted in a loss of the whole of the left lower quadrant, and the peripheral portion of the left upper quadrant in each field. After two years, during which repeated examinations revealed the permanence of these defects, the patient died of heart disease. At the autopsy the brain was found normal, with the exception of some atheroma of the arteries, and of a patch of atrophy strictly limited to the grey matter of the lower half of the right cuneus, the white matter underneath was softened to the extent of a third of an inch.

This case shews, therefore, that in this patient the fibres from the right upper quadrant of each retina terminated in the lower half of the right cuneus. There is some evidence for regarding the representation of the lower right quadrant of the retina as taking place in the lingual lobule, *i.e.*, below the cuneus (Swanzy.) The spatial relation of these cortical areas to the retinal quadrants has far more than a purely medical bearing; it appears to me to have the deepest philosophical significance. This, however, is not the occasion for a psychological discussion; and I must pass on to consider the means we have of distinguishing cortical from sub-cortical lesions.

Hemianopia, unaccompanied by hemiplegia, hemianæsthesia, or aphasia, suggests disease of the cortex; these complications appear, however, to present themselves as distant (transitory) symptoms, in many cases due to destruction of the optic radiations.

Hughlings Jackson has recorded a case of hemianopia from disease of the pulvinar. A lesion in this neighbourhood, that extended outwards and forwards, would involve the internal capsule. Hemianæsthesia will be found if only the posterior third be implicated; if, however, the lesion in the internal capsule extend forwards to the genu, hemiplegia will be observed.

Not unfrequently aphasia is associated with right hemianopia. The condition usually found, then, is an extensive affection, involving Broca's convolution as well as the occipital lobe; probably the optic radiations are implicated. A vascular lesion in the middle cerebral could not produce a direct effect on the cortical centre in the cuneus. A tumour in the situation of the left insula, that compressed the commissural fibres between the auditory word centre and the glossokinæsthetic centre in Broca's convolution, as well as the left optic tract, would, doubtless, give rise to the same symptoms; but I can find no record of such a case. The reaction of the pupil would distinguish it from the cases that I have just referred to.

Several cases of hemianopia, due to tract lesions, have been recorded, when involving the upper part of the temporal lobe they have been associated with deafness of the opposite ear. Gowers has recorded a case of tumour of inner part of temporo-sphenoidal lobe that first involved the left optic tract, causing right hemianopia, and afterwards implicated the left crus, causing right hemiplegia. Nothnagel, however, points out that the common affections of the crus (softening, hæmorrhages) very rarely involve the optic tract, which, indeed, has an independent vascular supply.

Finally, the hemianopia may not be absolute. There are eight cases on record in which colour vision only was lost, the form and light sense being practically unaffected. Swanzy quotes Verrey's most interesting case of hemiachromatopia.

> The patient had an apoplectic attack, from which she rapidly recovered. She complained, however, of some difficulty in reading. A perimetric examination revealed absolute colour blindness in the whole of the right side of the field of each eye, with diminution, but no absolute loss of the light and form senses. This condition remained unaltered for twenty months, when she succumbed to another apoplectic attack. At the autopsy the cause for death was found in a fresh hæmorrhage in the right centrum ovale and lateral ventricle, while an old hæmorrhagic cyst in the lower part of the left occipital lobe, involving the lingual lobule and the inferior part of the cuneus, explained the hemiachromatopia.

Dr. Verrey, from this case, infers that the colour sense occupies the most inferior part of the occipital lobe, and probably the posterior part of the lingual lobule, while higher towards the superior part of the occipital lobe is situated the cortical centre for the light sense, and probably between these two is the centre for form sense, for the latter was the function which, after the colour sense, he found most affected. (Swanzy.)

Heteronymous Hemianopia.—Hemianopia may also be bi-nasal or bi-temporal, but these forms are rare, and few cases have been examined post-mortem. Alterations in the optic disc (atrophy or neuritis) are generally to be found, as secondary changes in the optic nerve usually occur, within three or four weeks of the onset of the visual failure. The pathological evidence shews that the site of the lesion is at or close to the chiasma, indeed anatomical considerations would lead one to expect such forms of hemianopia to be due to disease either at this spot or below it; were any part of the optic route affected higher up, the hemianopia would be necessarily homonymous. The anatomical relation of the roots of the olfactory nerve to the chiasma affords an explanation of the disturbance of the sense of smell in one nostril that has sometimes been observed in these cases. Bi-temporal hemianopia is the more common, and seems to be due to the involvement of the chiasma. In Müller's case a sarcomatous growth, the size of an apple, starting from the pituitary body, that compressed the chiasma in the middle line, was found post-mortem. Bi-nasal hemianopia is less frequent;

indeed, when the anatomical arrangement of the nerve fibres is considered, it will be seen that it could only arise from two symmetrical lesions on either side of the chiasma. The anterior part of the circle of Willis surrounds the chiasma, so that atheromatous changes at the origin of the anterior cerebral arteries might give rise to this symptom, and some pathological evidence gives support to the view that it occasionally arises in this way. (Knapp.)

Total Blindness of both Eyes.—This may be due to a lesion involving the chiasma, both optic nerves or both optic tracts, or it may be the expression of a double cortical hemianopia, involving both visual areas. Brieger's case of disease of one optic tract and one occipital lobe has been already alluded to.

Crossed Amblyopia.—Some few cases have been recorded in which the eye on the side opposite to that of the cerebral lesion has been almost blind with extreme contraction of the field, while the other eye was affected to a much smaller degree.

Some years ago, I saw a case that seemed to be one of this description, but I regret to say the patient's vision was not properly examined. Post-mortem—there was extensive softening over the left side of the brain, involving the angular gyrus. The cause of this crossed amblyopia has often been ascribed to a lesion in the angular gyrus, in which situation some have imagined a higher visual centre for the opposite eye. Ferrier and Yeo's experiments have been quoted in support of this view. They found that after extirpation of the angular gyrus this symptom occurred, but it should be noted that it was only transitory, and that in similar experiments made by Brown and Thompson, no such loss of sight followed the operation.

Conclusions based on experiments on lower animals are liable to many sources of error. The visual tests demand that the animal's intelligence be unimpaired, and a condition of mind-blindness, or general failure of the higher mental faculties, may be easily mistaken for real loss of vision. When it is remembered how much further the field of vision extends to the temporal side than to the nasal, it will be understood how easily hemianopia may be interpreted as amblyopia of the eye that has lost the temporal half of its visual field. Some observers (Nuel) find that, in order to produce a permanent effect, the destruction of the angular gyrus must involve the deeper parts, and that then the defect is of the hemianopic type. Obviously in these cases the optic radiations are implicated.

Now, there is reason to believe that both right and left visual areas are connected with the left angular gyrus *(vide infra);* but the evidence points to the equal representation in this situation, at any rate of the central field of vision, of each eye. Further, lesions in this situation are very rarely accompanied by crossed amblyopia; and, lastly, the clinical characters of the affection seem to be

peculiar—they resemble more those of optic atrophy. The peripheral contraction of the field, the more or less complete retention of the central vision, the disturbance of the colour sense, would suggest a lesion in the optic nerves or chiasma.

Crossed amblyopia in connection with hemianæsthesia* of the same side has been found in lesions of the posterior part of the internal capsule (Müller, Bernhardt, Pitres). In all these cases there was also peripheral contraction of the field of the eye on the same side as the lesion, and in many cases the central vision of the opposite eye was but little affected.

I am far from being able to offer a satisfactory explanation of this phenomenon, but I would suggest that in all these cases a careful examination of the condition of the third ventricle be made.

The floor of the third ventricle in front of the diverging crura descends to form the funnel-shaped opening of the infundibulum. On the anterior wall of this funnel there is a pronounced ridge, an inversion, in fact, due to the presence of the optic chiasma that lies just below. A sort of pocket or rescess is thus formed in front of the chiasma.

It is possible that a lesion of the third ventricle involving this recess may be found in these cases. The pressure on the optic nerves and the anterior part of the chiasma might explain the amblyopia. There is abundant pathological evidence to shew that the macular fibres (*i.e.*, those concerned in central vision) occupy the axial part of the optic nerves. The maintenance of central vision, in some of these cases, might, therefore, be explained; its abolition would only occur with pressure sufficient to destroy the conductivity of even the central parts of the nerve. This hypothesis does not, however, explain why one optic nerve should be more affected than the other. It is, however, a point worth examining, I think, and, as far as I know, has not been investigated or even suggested to explain this anomalous symptom. Since the pupillary reflex to light appears to depend chiefly on macular fibres, the maintenance of this reaction would not be antagonistic to this hypothesis unless the amaurosis was complete. These cases require very careful investigation, both during life and after death; indeed, I think it is not improbable that many that have been described as cases of crossed amblyopia would be found to present rather the symptoms of hemianopia. It should be noted that patients with loss of half of their visual field, almost invariably complain of blindness in the corresponding eye. An examination of the field with the perimeter reveals the true condition.

* It is possible, as Gowers suggests in criticising the term retinal hyperæsthesia, that there is a communication between the centres of the second and fifth nerves, so that an excitation of the centre of the fifth may alter the sensibility of that for vision. The amblyopia arising from dental irritation of the fifth nerve and the photophobia attending most corneal ulcers might be cited as bearing on this suggestion. If this assumption can be made, the amblyopia in these cases may have a direct relation to the hemianæsthesia in these cases of affections of the posterior part of the internal capsule.

For those who do not possess a perimeter, I would suggest a very simple device for quickly testing the visual field. Let us suppose the field of the right eye is to be examined; the patient is told to close his left eye with his hand, and the surgeon closes his own right eye in a similar way with his right hand. He then takes a piece of white paper in his left hand, and, standing at a distance of eighteen or twenty inches from the patient, directs him to look fixedly at his left eye, and to tell him the moment he sees the white paper come into view as it is moved about in the median vertical plane between them. It will be found that a normal individual can see the paper when held at arm's length on the temporal side, but on the nasal side the object must be brought much nearer, *e.g*, nine or ten inches. The advantages of this method are two-fold: 1st, the surgeon is constantly watching the patient's eye, and can note the moment he ceases to fix properly; 2nd, the surgeon is taking his own field of vision at the same time as the patient's, and can note any discrepancy that there is between them with the greatest readiness. On the assumption that his own field is normal in extent, this is practically all that is wanted for a first rough test.

If any discrepancy be found, it is most desirable that a thorough perimetric examination should be at once made. It is hardly necessary to point out that in all cases of scotoma or amblyopia a careful examination of the eye itself should be made before concluding that the defect of sight has a retro-ocular source or any localizing value in cerebral affections.

Mind Blindness and Word Blindness.—Swanzy records a case of mind blindness, associated with left hemiachromatopia of five months duration. The patient complained that he could not recognize even his most intimate friends until they spoke, though he could see them distinctly. There was no word blindness. The lesion must have been on the right side of the hemisphere, but there had been no opportunity for discovering its site at the time of publication.

Word blindness, or inability to read, seems to have been associated with right hemianopia in many cases; there is only one record of this complication occurring with left hemianopia (Borel). There is strong evidence for regarding the left angular gyrus as the seat of the visual word centre.

M. Sérieux has reported a case this year (1892) in which the visual word centre was destroyed. The patient could neither read nor write, but had no symptoms of mind blindness or hemianopia. *Post-mortem* a small patch of softening was found, limited to the cortex of the left angular gyrus.

Last year, M. Dejerine had a similar case, complicated, however, by right hemianopia. *Post-mortem* a similar patch of softening was found, limited to the left angular gyrus and the subjacent optic radiations, which accounted for the right hemianopia.

The recently published case of M. Dejerine is most instructive as to the site of the visual word centre and its connections.

The patient found one morning, in 1887, that he could not read a word or even a letter, whether printed or written, though figures still retained their significance, and he was able to execute arithmetical calculations, whether in his head or on paper, with his usual skill. He was a good musician, but he had lost the power of reading from a musical score. He could write with facility, both spontaneously and from dictation, but could not read what he had written; nor could he copy from manuscript or book. He had right hemianopia. There was no aphasia, no loss of intelligence, no hemiplegia. This condition lasted for four years without any change taking place. Obviously the visual area on the right side was intact, and his centre for visual word memory, for he could express himself in writing with ease, and, of course, his cheirokinæsthetic centre and the commissure connecting these two must have been uninjured. Clearly the commissure between the right visual area and the visual word centre was here implicated. On December 31, 1891, he was suddenly attacked with pronounced paraphasia and total agraphia, without hemiplegia, or loss of consciousness. There was no word deafness. He died on January 10 of this year (1892). At the *post-mortem*, the right side of the brain presented no morbid change, but in the left hemisphere were found two lesions corresponding to the two attacks.

There was a yellow atrophic patch, occupying the tip of the occipital lobe, the base of the cuneus and the lingual lobule, comprising the posterior part of the inferior occipito temporal convolution; the left optic radiations were also atrophied. The right hemianopia is, therefore, explained; and we may regard the word blindness as due to the implication of the commissural fibres passing from the right visual area, by the splenium of the corpus callosum, to the left angular gyrus. The lesion would involve these fibres in the latter part of their course.

The more recent lesion consisted in a patch of red softening, occupying the inferior parietal lobule, and involving the angular gyrus. The whole of the frontal lobe was intact. The total agraphia seems to have been due to the destruction of the visual word centre in the left angular gyrus.

Optic Neuritis.—Optic neuritis occurs in about four-fifths of the cases of cerebral tumour (Gowers) at some stage in their progress. It may occur early or late, it may present the same ophthalmoscopic appearances for months, or it may subside within a few weeks, leaving only slight evidence of consecutive atrophy. Optic neuritis may occur in tumours in almost any part of the brain. At a recent meeting of the Northumberland and Durham Medical Society, Dr. Drummond stated that he had never met with it in tumours of the pons, and it was certainly absent in the two cases of the kind that I had an opportunity of examining during life and post-mortem. It may be concluded, therefore, that optic neuritis is very frequently absent in pontine lesions. "Tumours of the medulla, below the pons, usually cause death before optic neuritis is developed, but Dr. Barlow has met with neuritis in one case where there was a small tumour in this region."—(Gowers.)

My contention then is justified, that optic neuritis has practically no localizing value, and the discussion of its causation has no bearing on the subject of this paper.

Optic Atrophy.—This may be either primary, secondary, or consecutive—*i.e.*, post neuritic. Secondary atrophy may be due to compression of the optic nerves or the chiasma, and hence may be of some use in regional diagnosis. Secondary atrophy may be distinguished by the fact that the loss of sight occurs before the atrophic change in the disc. Some suggestion as to the site of the lesion may perhaps be given by the interval of time before the opthalmoscopic change manifests itself. The other forms of atrophy have no localizing significance.

If the long course of the optic nerve fibres from their origin in the occipital cortex to their termination in the retina be considered, it will be seen how imperative is the thorough investigation of the visual function in all cases of cerebral disease in which such an examination is possible. In this connection it is important to remember that negative evidence is scarcely less valuable than positive, seeing how largely the localization of a cerebral lesion depends on the process of exclusion.

II.—DISTURBANCES OF THE MOTOR APPARATUS OF THE EYEBALL.

Centres governing the movements of the limbs have been discovered and defined with some degree of accuracy in the cortex of the opposite cerebral hemisphere, but experimental investigations have not been so successful in ascertaining any such motor areas for the opposite eye. The reason of this, no doubt, is that the eyes are so correlated in function, in accordance with the requirements of bi-nocular vision, that one eye hardly ever moves in the normal state without a corresponding movement of the other. These associated movements may have a cortical representation, but if so it is probably double, and consequently, if the area on one side be destroyed, the conjugate movement is carried on by that in the other hemisphere. Hence cortical lesions do not entail loss of movement in the eyes, with the single exception of the lateral ranging movements, which, as might be anticipated, are represented in each hemisphere.

In the same way, since both eyelids almost always act together, their movements are probably doubly represented in the cortex, hence facial palsy of cortical origin leaves the orbicularis palpebrarum practically unaffected, so that the eye can be closed. The movements of the lids are, however, sometimes dissociated, as in the act of winking, and it would appear that this act is excited by an area in the opposite hemisphere, probably to a varying degree in different individuals. Hence it is possible to get some eyelid palsy as the result of a cortical lesion, but it is never complete.

A.—Associated Movements.

Conjugate lateral deviation.—The cortical centre for the ranging movements is still undetermined, we know, however, that the area

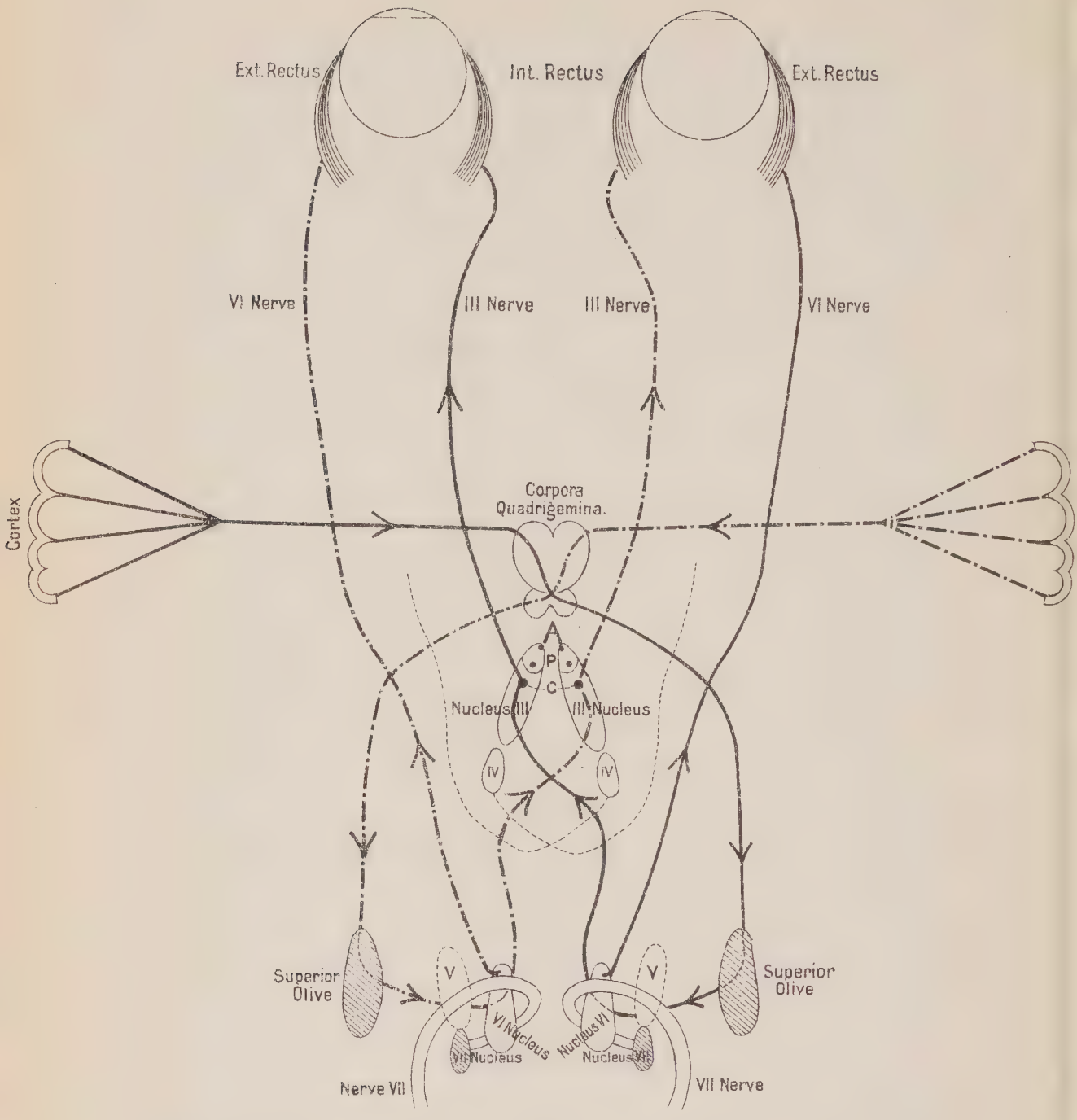


DIAGRAM TO ILLUSTRATE THE COURSE OF THE NERVE FIBRES FROM THE CENTRES THAT PRESIDE OVER THE RANGING MOVEMENTS OF THE EYES.

The superior olive and the VII. nucleus are situated below the level of the VI. nucleus.

A most anterior part of III. nucleus presiding over the function of accommodation.

P the centre for the sphincter iridis.

C points to that part of the III. nucleus that innervates internal rectus, and consequently related to the function of convergence.

which governs the ranging movements to the right is situated in the left hemisphere, so that when this area is destroyed or its action inhibited the eyes turn to the left, or, as Prévost expresses it, they look at the cerebral lesion. As to its site Victor Horsley gives clinical evidence to shew that it occupies the posterior third of the middle frontal convolution, and this is borne out by experiments on the monkey. Wernicke and Grasset, however, regard it as situated in the inferior parietal lobule, but the facts they adduce in support of this seem inconclusive, as they allow of different interpretation. This symptom is, however, so frequent, especially in cerebral hæmorrhage, and at the same time so transient, that it is probably rarely a direct symptom, and has, therefore, little localizing value in lesions of the cerebral hemisphere.

Little is known of the course of the nerve fibres from the cortex. Obviously in the ranging movement to the left, the efferent impulse must pass along the left sixth nerve, and that part of the right third nerve that supplies the right internal rectus. Conjugate deviation has been observed in lesions of the internal capsule, but this cannot be regarded as decisive evidence that the efferent fibres leave the cortex by this route. Adamück has found that stimulation of the right anterior corpus quadrigeminum in the dog causes a rotation of both eyes to the left. Again, clinical evidence in man shews that *destructive* lesions on the right side of the pons cause a conjugate deviation to the left.

It is probable that the efferent fibres for this movement, on leaving right cortex, pass through or close to right anterior corpus quadrigeminum, and then cross over to the opposite side, and reach the left superior olivary body of the pons, as Gowers suggests. This body is connected with the nucleus of the sixth on the same side, that lies above it, and through it by means of the decussating longitudinal fibres on the dorsal surface of the pons, with the nucleus of the third on the opposite side. Should this prove to be correct, an explanation is afforded of the clinical varieties of conjugate deviation. *(Vide diagram.)*

In destructive lesions, on the right side above the corpora quadrigemina, the conjugate deviation will be to the right. If the lesion be below the corpora quadrigemina, there will be conjugate deviation to the left. It may be noticed that the conjugate deviation in pontine lesions is almost always permanent, and, unlike that due to cerebral lesions, may be regarded as a direct symptom. It should be remembered, however, that this abnormal position of the eyes may be due to spasm of the implicated muscles as well as to paralysis of their antagonists. The clinical varieties may, therefore, be classified in the following way (Landouzy):—

1. A patient who turns his eyes (and usually his head also)

towards the contracted side, is suffering from an irritative lesion of the cerebral hemispheres on the opposite side.

2. One who turns his eyes away from the paralysed side is suffering from a destructive lesion of the cerebrum on the side towards which his eyes are directed.

3. Conjugate deviation towards the paralysed side indicates a destructive lesion of the pons on the opposite side.

4. Conjugate deviation away from the contracted side suggests an irritative pontine lesion on the side towards which the eyes are turned.

Gowers points out that in destructive pontine lesions the symptoms vary according as the nucleus of the sixth be involved or not. If the lesion be on the right side, and above the nucleus of the sixth, each eye can be moved up to the middle line, but no further. If, however, the right sixth nucleus be implicated, the external rectus is completely paralysed, so that the right eye is fixed in the position of inward rotation, while the left eye can be moved up to the middle line, as in the previous case. In this condition the facial nerve is usually paralysed as well, owing to the proximity of its origin.

Loss of the upward or downward movement of the Eyes.—Loss of the upward movement, together with paralysis of the levators of the lid, has been observed in disease of the posterior part of the third nerve nuclei (Kahler and Pick). Gowers records a case in which the levators were unaffected, and at the autopsy "a very small tumour was found in the middle line behind the posterior quadrigeminal bodies, damaging these slightly, the velum, and the adjacent part of the inferior vermiform process of the cerebellum." Paralysis of both upward and downward movements of the eyes, without impairment of the lateral movements, is probably due to a lesion in the posterior part of the third nuclei (Gowers). Swanzy says that if this paralysis is attended by hemiplegia, the lesion involves the pyramidal tracts at the level of the anterior quadrigeminal bodies the posterior commissure, and the neighbouring part of the optic thalamus. One case has been recorded in which this symptomwas complicated by hemianopia, in which, presumably, the pulvinar was involved (Lang and Fitzgerald).

Loss of the power of Convergence and Accommodation.—Convergence is effected by the simultaneous action of the internal recti; and accommodation by the ciliary muscles. Both these muscles are innervated by the third nerve. There is reason to believe that the most anterior part of the third nucleus, at the opening of the aqueduct of Sylvius into the third ventricle is associated with three acts, viz., accommodation, contraction of the pupil, and convergence, and it is believed that this order represents the arrangement, from before backwards, of those parts of the nucleus that control these respective functions.

Loss of convergence, without impairment of the ranging movements, is commonly associated with loss of accommodation. I have been unable to find any post-mortem record of the pathological condition where this has occurred. The condition appears to be usually transitory, and has in the present state of our knowledge little or no localizing value.

M. Parinaud has met with several cases of this nature. In one case that he records the subject was a child of 10, with absolute loss of convergence and accommodation, though the ranging movements were normal. The pupils acted well to light, but not when an attempt was made to excite convergence. The onset of the attack (*i.e.*, the diplopia and the inability to read) was sudden, and was associated with vomiting, and an exaggeration of the previously existing headache. However, the paralysis passed off in five days, after a dose of calomel. Four years afterwards the child was again brought to M. Parinaud, on account of certain giddy sensations from which he had been suffering for the last six months. He found simple convergence insufficiency, and ordered prisms (bases in), which were entirely successful in relieving the boy of his symptoms.

I quote this case to emphasize the importance of not forming a hasty conclusion in these cases, that there is necessarily a gross structural change. The same caution is necessary in cases of convergence spasm, of which M. Parinaud has also published examples. Loss of accommodation, without impairment of convergence, is very frequently seen after diphtheria from parenchymatous degeneration of those short ciliary nerves that supply the ciliary muscle. The pupillary fibres are usually but little affected.

Nystagmus.—This is said to be especially common in tumours of the cerebellum (Gowers) ; but it may arise from so many various conditions that it may be regarded as of no localizing value.

B.—Non-Conjugate Movements.

A deviation of one eye downwards and outwards, while its fellow is turned upwards and inwards has been observed in some cases of disease of the middle cerebellar peduncle (Gowers.) No explanation has been offered of its occurrence, but according to Swanzy it has only been seen associated with lesions in this situation.

Ptosis.—Occasionally ptosis has been met with in cerebral lesions of the opposite hemisphere without implication of the other branches of the third. It has no localizing value, but it may point to a cortical lesion if it be the only focal symptom.* It is frequently a distant symptom.

A slight ptosis on one side may be also due to an affection of the sympathetic on the same side, paralysing the unstriped muscular fibres of the lid. The concomitant symptoms of sympathetic paralysis make the diagnosis in most cases easy. We usually find

* The hysterical ptosis that is sometimes seen is probably due to some functional disturbance of the cortex. I have met with one typical case of this kind affecting the left eyelid.

contraction of the pupil, apparent or real enophthalmos, contraction of the palpebral opening, though the lid can be raised, and vascular dilatation on the same side of the face. This sympathetic paralysis is said to have been found in lesions of the corpus striatum.

Paralysis of individual ocular muscles has not as yet been met with in lesions of the cortex or of the cortico-peduncular tract, as I have just said, there seems to be no direct representation in the cortex of one hemisphere of the movements of the opposite eye. Hence, in any case of paralysis of an ocular nerve,* we may assume that the lesion is either situated at its nucleus of origin, or in some part of its sub-nuclear course to the ocular muscle. Since the nuclei are in such close relation with each other, paralysis of a single muscle suggests a sub-nuclear lesion. Thus the nucleus of the sixth could scarcely be affected without involving the seventh also. Indeed the fibres from the facial nucleus curve round that of the sixth. The ocular nerves may also be paralysed by a growth within the orbit, but in such cases the concomitant symptoms, *e.g.*, orbital pain, tenderness, exophthalmos, etc., generally enable one to form a correct diagnosis. In their course through the cavernous sinus it would be almost impossible for one nerve alone to be affected, with the exception perhaps of the sixth. The third, fourth, and ophthalmic division of the fifth would almost certainly suffer together. There would usually, if not always, be some œdema, and enlargement of the veins about the orbit, as well as exophthalmos, which would enable one to recognise the site of the lesion. Again, in basilar lesions, behind the sella turcica, the associated conditions will lead one in many cases to localise the exact part of the nerve affected. It should be remembered, however, that paralysis of the ocular nerves is sometimes a distant (transitory) symptom.

It is sometimes a difficult matter to determine exactly which of the ocular muscles is paralysed. Very often, however, the peculiar carriage of the head suggests at once the muscle that is at fault. In the case, for instance, of paralysis of the right external rectus, the patient is annoyed by the diplopia that is induced unless he turns his eyes towards the left. In order now to see an object that lies in front of him, without the annoyance of these double images, he turns his head towards the right. Similarly with paralysis of the other muscles, the patient tends to place his head in that position in which diplopia can be avoided. This general law may be stated in the following form :—

The head assumes a position similar to that which the eye would take were the paralysed muscle to act on it. The sound eye assumes a direction similar to that of its paralysed fellow.

* The occasional paralysis of the levator palpebræ from a cortical lesion has been already noticed.

There is another symptom that is sometimes of service in the diagnosis of incomplete paralysis. It depends on the fact that our knowledge of the position of things in space is largely due to the innervation that we give to the ocular muscles. A patient, for instance, with paresis of the right external rectus will have to make a considerable effort in order to turn his eye towards the right. If the left eye be covered, he will imagine that an object on his right occupies a more lateral position than it does in reality, and, if asked to touch it, will stretch his hand out towards the right of it. This erroneous projection is always in the direction of the action of the paralysed muscle. (Gowers.)

In most cases a careful examination of the movements of the eyes, combined with a study of the diplopia in different parts of the field, will reveal the various muscles that are at fault.

If, however, one of the eyes be blind, the difficulties are immensely increased, as the subjective symptoms of diplopia fail to present themselves, and the diagnosis must be made almost entirely from the observation of the movements of the eyes. Paralysis of the obliques might easily escape detection under such circumstances. It occurs to me, however, that it might be recognised by means of the ophthalmoscope. Owing to the torsion that ensues if the eye be depressed in fourth nerve paralysis, the superior and inferior vertical retinal vessels would be directed obliquely downwards and inwards. Torsion in the opposite direction would occur on raising the eyes in paralysis of the inferior oblique.

Paralysis of the Third Nerve.—The third nerve arises from a nucleus in the floor of the aqueduct of Sylvius, below the anterior quadrigeminal bodies. Passing through the tegmentum and substantia nigra of the crus it appears at its inner border in the interval between the posterior cerebral and superior cerebellar arteries. It then enters the outer wall of the cavernous sinus, and so reaches the sphenoidal fissure.

Owing to its relation to the crus a lesion in this part often affects the third nerve also, and can be readily recognised by the crossed paralysis that ensues. There is hemiplegia on the side opposite to the lesion, and third nerve paralysis on the same side as the lesion. In fact this combination is pathognomonic of disease in the crus, provided that the two affections have appeared simultaneously.

Complete paralysis of the third nerve can be recognised, almost at a glance, by the ptosis, external strabismus, dilatation of the pupil, and loss of accommodation that result from it.* This complete paralysis is probably always due to a basilar lesion. Ranchfuss has observed it in a case of aneurism of the left posterior

* There is often slight exophthalmos, due to relaxation of the ocular muscles involved.

cerebral artery, of the size of a pea, that compressed the left third nerve as it passes under that artery.

Both third nerves might be completely paralysed by a growth in the interpeduncular space. Gowers records a case which he considers to be due to a tubercular mass in this situation. There was complete paralysis of both third nerves, associated with double optic neuritis and weakness in the limbs of both sides. Under tonic treatment, the child recovered, so that no post-mortem evidence was obtained.

The complete paralysis of the third, so common in syphilis, is probably due to a basilar lesion. Were it in the sphenoidal fissure, the nasal nerve could not escape, as it lies between its two divisions; but I have not had an opportunity of obtaining post-mortem evidence of this.

Paralysis of the Fourth Nerve —Since the superior oblique rotates the cornea downwards and outwards, if the fourth nerve is paralysed, the patient, in accordance with the general law, carries his head bent downwards and inclined towards the sound side, the chin being directed towards the affected side. Diplopia only occurs in the lower portion of the visual field, so that the patient usually holds objects that he is examining above him and somewhat towards the sound side.

The fourth nerve is rarely paralysed alone, it is probably not unfrequently affected in basilar meningitis, in association with other nerves, though I have never been able to satisfy myself that it was so in any case that I have seen. The conditions in such cases are exceedingly unfavourable to its detection. This paralysis is said to have occurred in tumours in the region of the corpora quadrigemina. In Nieden's case there was paralysis of this nerve alone, due to compression of its fibres by a cystic degeneration of the pineal gland.

The fourth nerve arises from a nucleus in the aqueduct of Sylvius, just behind that of the third nerve, and scarcely separated from it. Its fibres then ascend to the valve of Vienssens, cross over to the opposite side, and passing behind the corpora quadrigemina, wind forwards and downwards to the outer side of the crus. One would expect, therefore, in a limited unilateral lesion of the third and fourth nuclei, to meet with paralysis of the third on the same side, and of the fourth on the opposite side to the lesion. I believe, however, no such case has been as yet recorded.

Paralysis of the Sixth Nerve.—The sixth nerve arises from the floor of the fourth ventricle, close to the seventh nucleus. Emerging at the lower border of the pons, it passes to the notch in the posterior clinoid process, to which it is closely fixed by the attachments of the tentorium. It then enters the cavernous sinus, and, winding round the outer side of the carotid artery, passes forwards

in its floor to the sphenoidal fissure. The long and singular course of this nerve explains the frequency of its paralysis.

In a lesion of the pons on the right side conjugate deviation of the eyes to the left may be observed, with left hemiplegia. If the lower part of the pons be affected there will be paralysis of the right facial as well as of the right sixth nerve with the left hemiplegia. If the fibres of the sixth be affected below the nucleus of origin there will be simply internal strabismus, but no conjugate deviation. In one case of cerebellar tumour that I saw there was paralysis of the sixth nerve, due to the downward pressure of the growth, which was limited above by the unyielding tentorium.

In fractures of the base of the skull in the middle fossa, paralysis of the sixth not unfrequently occurs, though perhaps not so often as facial paralysis.

Ophthalmoplegia.—This term has been applied to a progressive paralysis of the muscles of the eyes.

Ophthalmoplegia interna denotes paralysis of the internal muscles of the eye, and is almost certainly due to a progressive degenerative process in the most anterior parts of the two third nuclei, which control the function of accommodation and the variation in the size of the pupil. If the disease extend backwards, ophthalmoplegia externa is developed, as the nuclei that govern the movements of the external muscles of the eye are involved. Not unfrequently the nuclei of other nerves are affected, especially the seventh and fifth. More commonly this ophthalmoplegia externa is developed without implication of the parts supplied by the ciliary nerves. Heubner states that the anterior part of the third nucleus, which governs the intrinsic muscles of the eye, has a different vascular supply to that of the posterior part, so that some explanation is afforded of this curious partial implication of the nucleus. The disease is obviously closely allied to bulbar paralysis and anterior poliomyelitis, differing only from them in its seat.

The Condition of the Pupils.—The actual size of the pupils has but little localizing value; they are usually contracted in lesions of the pons, and, occasionally in cerebral hæmorrhage. If the pupils are unequal, one may be in doubt which is the affected pupil and what the cause of the alteration in its size.

Myosis may occur from (1) spasm of the sphincter pupillæ, due to irritation of the fibres from the third that supply it; (2) or it may be due to paralysis of the sympathetic fibres that reach their destination by way of the Gasserian ganglion, the nasal and long ciliary nerves.

Mydriasis may occur from paralysis of the third nerve fibres, or irritation of the sympathetic fibres.

It must be remembered that if one pupil be widely dilated, the other will tend to contract, owing to the increased amount of light entering its fellow.

The condition of the accommodation is a valuable guide in many difficult cases, in deciding whether the third nerve fibres are paralysed, irritated, or intact, as accommodation usually suffers with the pupil.

A sympathetic lesion, on the other hand, never affects the accommodation, and it is often associated with other signs suggestive of sympathetic affection. Mydriasis, slight enlargment of the palpebral opening, exophthalmos, and pallor on the same side, would point to sympathetic irritation. The reverse conditions are associated with sympathetic paralysis. Of course, if only the long ciliary nerves are affected, these concomitant affections would be absent.

Inequality of the pupils may arise from trivial irritations, toothache, or migraine, or may be the only indication of a partial paralysis of the third nerve, thus it is often seen in basal meningitis.

Reference has been already made to the course of the nerve fibres engaged in the pupillary light reflex, and its value in recognising optic tract lesions. The centre for this reflex has been shewn to occupy a position between that governing accommodation and that for convergence (Hensen and Völckers). The pupillary contraction that accompanies convergence and accommodation can, therefore, be easily explained. Now in some cases the light reflex is lost, although contraction of the pupil still occurs when accommodation and convergence are excited. This would suggest a lesion in the afferent fibres, from the optic nerve to the centre for the sphincter pupillæ, as a lesion limited to this centre alone could not occur. It will be remembered that the afferent (optic) fibres wind down in the wall of the third ventricle to this centre. Now Moeli has described a case in which just these fibres were involved from a tumour in the anterior part of the third ventricle. The optic nerves and third nucleus were intact, and during life it was observed that the light reflex was absent without disturbance of vision.

Loss of the light reflex is one of the most constant symptoms of locomotor ataxy, and this case would lead one to look for some change in the same situation. An atrophy of the afferent fibres, similar to that which so commonly affects the visual part of the optic nerve, might easily occur and escape detection without careful microscopic examination, and it is quite possible that the part engaged in the pupillary reflex is even more prone to this affection than the visual part of the optic nerve.

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